

**CHECK LIST OF
EUROPEAN HYMENOMYCETOUS HETEROBASIDIAE**

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With this check list an attempt is made to account for the recorded European species of those Basidiomycetes that Patouillard called the "Hétérobasidiés", excluding, however, the Uredinales and Ustilaginales. Therefore, it covers the Septobasidiales, Tremellales (comprising the Auriculariineae and Tremellineae), Tulasnellaceae (Corticaceae with repetitive basidiospores), Dacrymycetales, and Exobasidiales. Of each species admitted the synonyms at the specific level are listed as are also references to selected descriptions and illustrations. Notes on taxonomy, synonymy, and nomenclature are appended to a considerable number of entries. A final chapter not only recapitulates alphabetically the names appearing in the check list proper: it also deals briefly with such generic and specific names as are considered to be either not validly published or nomina dubia, or else have been given to taxa that must be excluded as foreign elements. New species are *Glomopsis loniceræ* and *Tulasnella curvispora* Donk. New combinations with the following generic names are proposed: *Exidia* (1), *Exobasidiellum* (1), *Helicogloea* (1), *Myxarium* (1), *Saccoblastia* (1), *Septobasidium* (1), and *Tulasnella* (1).

Synopsis of Chapters

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Alphabetical index, including names omitted from the check list proper.

Preface

The main chapter of this publication, entitled "Check list of European hymenomycetous Heterobasidiae", exposes a very sick body on the operation table. A great deal of surgery is needed to restore the patient to some measure of health. This must be performed by the joint efforts of competent specialists, several of whom are already engaged on the task.

My own aim has been to present a somewhat personally tinted report on what has been done so far on the systematics of the species. The check list itself is an extract of a card-index for the Hymenomycetes which I have been building up over a

considerable period of time, a card-index of a kind that is compiled *before* beginning monographic treatment. I had no intention to go beyond this stage.

One of my principal objects was to check the literature, especially the references to the protologues of the published specific names, and in conjunction with this to study the protologues themselves. It was a sad experience to note how far this has been neglected by many mycologists of the preceding generations and even in the monographs of various contemporary authors. The transcription of bibliographic errors still makes up a portion of a number of recent publications. I wish to emphasize that every reference not followed by 'n.v.' has been checked. This also applies to those references which consist of only a date, i.e. without any further indication of place of publication.

To achieve a brief title the groups considered in this paper are indicated by the denomination 'hymenomycetous Heterobasidiae'. This means Patouillard's "Hétérobasidiés", with the exclusion of the Uredinales and Ustilaginales and a few other, minor, retouches, while the conception of the 'Hymenomycetes' is that of Fries (1874). The groups thus covered are (i) the Septobasidiales, included by Patouillard in his Auriculariaceae; (ii) the Tremellales, here conceived as a combination of what is now often called the Auriculariales and Tremellales; (iii) the Tulasnellaceae; (iv) the Dacrymycetales; and (v) the Exobasidiales.

It may be stipulated that I do not regard Patouillard's Heterobasidiae in its original conception an acceptable taxon. In my opinion, aside from the Uredinales, it should include only groups (i), (ii), and perhaps (iii). The Tulasnellaceae, as recently defined by Talbot (1965), are technically intermediate between the Tremellineae and the Aphyllophorales. This point will be more fully discussed in its appropriate place. As to the Dacrymycetales, notwithstanding the gelatinous fruitbody, this order differs in some features so distinctly from the Heterobasidiae *sensu stricto* that it can well be kept separate from the latter. Like the Tulasnellaceae it is apparently connected with the Corticiaceae (Aphyllophorales) by some intermediate taxa. These bridges should not be accepted at their face value; like Corner I am of the opinion that the Corticiaceae are, at least for the major part, a grade in which many 'reduced' groups are temporarily assembled until relationships with other families can be established. Several resupinate genera have already been excluded (cf. Donk, "A conspectus of the families of Aphyllophorales" in *Persoonia* 3: 199-324. 1964).

My aim has also been to provide a basis for those mycologists who desire to view these groups from a strictly taxonomic angle. This basis consists of a compilation of the published names and a brief survey of the available literature on the subject. The appended notes are intended not only to clarify some of the considerations that have helped in shaping this check list, but also to draw attention to various subjects of interest, for the most part those that require further study.

It will soon be seen that I have kept the purely nomenclative references clearly separate from all the others. Moreover, as should be expected of a publication that calls itself a check list, they have been kept as brief as possible. They deal only with

specific names (save for the indispensable exceptions). On the other hand, much attention has been devoted to providing an adequate key to the literature and illustrations relating to each published name, thus furnishing an introduction to the available knowledge of each taxon. This may fill a need where such references have been omitted in recent monographs.

The registration of names is not intended to assign to them any status under the "Code" other than the one they had before this paper appeared. New names and new combinations are indicated unambiguously.

Method of presentation

Europe.

'Europe' is accepted in its traditional sense, without Greenland, but including the Caucasus.

Generic names.

Generic names are listed without the usual references. Variant spellings are not mentioned. For these and other nomenclative details the series "Generic names proposed for Hymenomycetes" (cf., *inter alia*, Donk, 1958b¹) should be consulted; references to this are added between square brackets.

EXAMPLE:—"CALOCERA (Fr.) Fr. / 1825 [1958 (Ta 7): 173]. — *Clavaria* subgen. *Calocera* Fr. 1821. — Lectotype: *Clavaria viscosa* Pers. per Fr." is an abbreviated form of 'CALOCERA (Fr.) Fr. 1825 (for place of publication and other nomenclative details, see Donk in Taxon 7: 173. 1958). — *Clavaria* subgen. *Calocera* Fr. 1821, basionym. — Lectotype (selection discussed by Donk, l.c.): *Clavaria viscosa* Pers. per Fr.'

Specific names.

This check list distinguishes between four kinds of specific names: (i) the *basionym* and (ii) the corresponding *recombinations* of its epithet, as well as (iii) the corresponding *new names*, viz. name changes replacing an existing name. These recombinations and new names together form the *isonyms* of the (ultimate) basionym.

The last category is (iv) the *non-isonymous synonyms* of a correct name, viz. names that upon their publication were not (or not primarily) intended to replace a previously published name. Some of these may later prove to have been based on the same type as another name, in which case they become obligate synonyms (typonyms).

Of a correct name the specific epithet is printed in bold-face type, followed by the author's citation and the date of publication. Then come the basionym and/or the recombinations of the latter, as well as name changes (epithets spaced) as far as they are devalidated names or have been validly published (provided no qualification to the contrary is added); each is likewise followed by the author's citation and the date of publication.

¹ Parts I-IX, XII, XIII were brought together in a photo-reprint edition to which an "Index" was added; Weinheim, J. Cramer, 1966.

Non-isonymous synonyms form separate entries; their epithets are spaced. These entries are arranged in chronological order according to the date of the first-published specific combination—validly published or devalidated. Where nomina anamorphosium are listed these come after the names based on the perfect state. Then follows a selection of misapplications (preceded by the indication “M.”), in such cases as these are worth mentioning at all.

References.

It will be seen that there are three kinds of references. One of these comprises references consisting of nothing but a date. These references are not further elucidated and are not taken into consideration in the following explanation.

References consisting of a date not printed in italics and followed by additional information.—In connection with this category a distinction is made between ‘books’ and ‘serials’. ‘Books’ are cited by a date or by a date and a strongly reduced title (and where necessary the number of the volume, fascicle, &c.) followed by the indication of such items as page, plate, figure, or, in the case of exsiccatae of series with printed labels, number (“No.”). Titles of ‘serials’ (periodicals, journals) are abbreviated to not more than three letters and are usually followed by the number of the volume, both between brackets. In other respects the same pattern used for ‘books’ is adhered to. Where alternative page numbers are mentioned, the second is that of the reprint.

The abbreviated titles of both the ‘books’ and the ‘serials’ are listed and elucidated by their more usual, less strongly abbreviated form in the Chapter “Explanation of strongly reduced bibliographic references”.

EXAMPLES:

Batsch 1786: 229 = Batsch, *Elench. Fung. Cont.* 1: 229. 1786.

Pers. 1799 O. 2: 14 = Pers., *Obs. mycol.* 2: 14. 1799.

L. Tul. 1853 (ASn III 9): 204 = L. Tul. *in Ann. Sci. nat. (Bot.)*, sér. III, 9: 204. 1853.

References to titles listed in the “Bibliography”.—These are in the form of dates printed in italics.

Composition of entries.

To each entry of a correct name or of a non-isonymous synonym at least one reference to a description is added. If there is no more than one such reference this indicates that I know of no improved descriptions or illustrations. Usually this one reference is to the protologue of the name. If the protologue was thought to be a useful account of the taxon a reference to it is given separately from the nomenclative information.

The one or more references following the nomenclative information about an entry and separated from it by a dash (—), are those I regard as being of some importance to the knowledge of the taxon. These are arranged in chronological order and usually refer to the more representative descriptions and illustrations of

the taxon, and occasionally also to notes on other subjects, such as nomenclature, distribution, and cytology. The descriptions and notes referred to are not necessarily reliable. For instance, they may have been drawn up for a too-inclusively conceived taxon. They may even be the result of misconceptions that have so far not been recognized as such. Sometimes they contain only a minor addition to previous knowledge of the taxon but in that case very little is known about the latter and the information may conceivably be of some use to future workers.

These references are often followed by a generic or specific name between brackets. They were added to indicate the specific or infra-specific name under which the matter referred to was published, the corresponding epithet not being repeated. In cases where the same name would follow two or more consecutive references this name has been placed only after the last of the series, and it is completely deleted where it is the same for all references as the name given at the beginning of the entry.

The swung dash (～) avoids repetition in full of the preceding name (mostly in the case of homonyms), minus the author's citation.

EXAMPLE of an entry of a correct name:

"**eriophori** Bres. 1891 (Germany). — *Platygløea* Höhn. 1909; *Xenogloea* H. & P. Syd. 1919; ≡ *Septogloëum dimorphum* Sacc. 1892. — Bres. 1891 (Rm 13): 14 pl. 113 fig.; Höhn. 1909 (SbW 118): 1157 (*Kriegeria*); . . ." is to be read as follows:

"**Kriegeria eriophori** Bres. 1891 (basonym; type locality, Germany). — Synonyms: *Platygløea eriophori* (Bres.) Höhn. 1909; *Xenogloea eriophori* (Bres.) H. & P. Syd. 1919; *Septogloëum dimorphum* Sacc. 1892 (name change). — Descriptions, illustrations, &c.: Bres. in Rev. mycol. 13: 14 pl. 113 unnumbered f. (as *Kriegeria eriophori*); Höhn. in Sber. Akad. Wiss. Wien (Math.-nat. Kl., Abt. I) 118: 1157. 1909 (as *Kriegeria eriophori*); . . ."

A reference will often be found after the first member of an entry. This is to the author who reduced the name to synonymy. He may not have been the first to do this. Various reasons often make the citation of a later author preferable; he may have seen the type or have recently studied it microscopically. If such a reference fails to mention the taxon to which a name was reduced, this means that the name was reduced to the correct name (basonym or one of the isonyms). In other cases the name of the taxon is mentioned specially.

EXAMPLES of entries of non-isonymous synonyms:

[**Aporpium caryae** . . .]

Polyporus argillaceus Cooke 1878 (G 7): 1 (U.S.A., California), not ~ (Murrill) Overh. 1926; fide Teix. & Rog. 1955 (M 47): 413" is to be read as follows:

Polyporus argillaceus Cooke in Grevillea 7: 1. 1878 (basonym; type locality, U.S.A., California), not *Polyporus argillaceus* (Murrill) Overh. 1926; fide Teix. & Rog. in Mycologia 47: 413. 1955, a synonym of *Aporpium caryae*."

[**Tremellodendropsis tuberosum** . . .]

Clavaria gigaspora Cotton 1907 . . .; fide Coker 1923: 198 = *Lachnocladium semivestitum* . . ." is to be read as:

Clavaria gigaspora Cotton 1907 . . .; fide Coker, Clav. U.S. 198. 1923, a synonym of *Lachnocladium semivestitum*, which in its turn is considered synonymous with *Tremellodendropsis tuberosum*.

Notes.

Numbers in bold-face type between brackets refer to the remarks assembled in the Chapter "Notes".

Special literature.

The references listed under this caption are to the titles in the "Bibliography". With few exceptions the items thus mentioned deal more or less *exclusively* with the subject, or part of the subject, for which they are cited. Papers or other works with a wider scope do not qualify as 'special literature'. For instance, the volume of the "Natürliche Pflanzenfamilien" containing the treatment of the 'Heterobasidiae' as well as that of various other groups is not included in the "Bibliography".

Abbreviations.

The following list does not contain the abbreviations of *titles of books and serials*. These will be found in the special Chapter "Explanation of strongly reduced bibliographic references". The abbreviations mentioned below do not include many of those that are in common use. Abbreviations of authors' names are not explained in this check list.

d.n.	devalidated name
<i>Ft.</i>	Farbtafel
<i>f., fs., fig.</i>	figure(s); fig., unnumbered figure
M.	misapplication
No.	number, numéro, &c.
nom. anam.	nomen anamorphosis
nom. conf.	nomen confusum
nom. cons., rej	nomen conservandum, rejiciendum
nom. nud.	nomen nudum
nom prov.	nomen provisorium
n.v.p.	not validly published
<i>pl., pls., plate</i>	plate(s); plate, unnumbered plate
repr.	reprint
<i>St.</i>	Schwarztafel
<i>tpl.</i>	text-plate
→	= & see . . .

ACKNOWLEDGEMENTS.—It is with particular gratitude that I acknowledge my debt to Mrs. E. van Maanen-Helmer, Amsterdam, for carefully reading the introductory chapters and the "Notes". Her painstaking advice has greatly improved the English text. I also gratefully express my sincere appreciation to those colleagues who furnished much needed information. Dr. R. W. G. Dennis, The Herbarium, Kew, in particular has given much time to look up references that were not accessible to me. Dr. R. F. R. McNabb, Auckland, New Zealand, was so kind as to answer various questions about the genus *Dacrymyces*.

Check list of European hymenomycetous Heterobasidiae

SPECIAL LITERATURE (dealing more or less exclusively with all, or most of, the groups treated in this check list).—Barnett, 1937; Bourdot & Galzin, 1909, 1924, 1928; Brefeld, 1888a; Christiansen, 1959; Costa, 1857; Costantin, 1888; Donk, 1958b; Heim, 1948–9; Kobayasi & Tubaki, 1965; Lowy, 1960; Martin, 1942, 1945, 1952a; Möller, 1895; Neuhoﬀ, 1924, 1936b; Pearson, 1928; Pilát, 1957a, 1957b; Raitviir, 1963, 1964; E. L. Tulasne, 1853; E. L. & C. Tulasne, 1871, 1872.

SEPTOBASIDIALES Couch ex Donk 1964

Septobasidiineae Rea 1927.

Septobasidiaceae Rac. 1909.

SEPTOBASIDIUM Pat.

1892 (nom. cons.) [1958 (Ta 7): 243]. — Lectotype: *Septobasidium velutinum* Pat.

Gausapia Fr. 1825 (nom. rej.) [1958 (Ta 7): 196]. — Monotype: *Thelephora pedicellata* Schw.
Glenospora B. & Desm. 1849 (nom. rej.) [1958 (Ta 7): 197]. — Monotype: *Glenospora curtisii* B. & Desm.

Campylobasidium Lagerh. ex F. Ludw. 1892 (nom. rej.) [1958 (Ta 7): 193]. — Type: no species mentioned by name, perhaps corresponding to *Septobasidium lagerheimii* Couch.

Ordonia Rac. 1909 [1958 (Ta 7): 238]. — Monotype: *Ordonia orthobasidion* Rac.

Mohortia Rac. 1909 [1958 (Ta 7): 207]. — Monotype: *Mohortia tropica* Rac.

SPECIAL LITERATURE.—Couch, 1938; von Höhnelt, 1911; Olive, 1943; Patouillard, 1892a, 1892b.

alni Torrend 1913 (Portugal). — Couch 1938: 150 *pl.* 21, *pl.* 70 *fs.* 1–5; R. Heim 1957 C.E. 2: 37 *f.* 82.

cabralii Torrend 1913 (Portugal). — Couch 1938: 293 (Torrend's description).

carestianum Bres. apud Bres. & Sacc. 1897 (Italy). — *Mohortia* Höhn. 1911. — Couch 1938: 155 *pl.* 20, *pl.* 74 *fs.* 1–12.

cavarae Bres. 1905 (Italy, Sardinia). — Couch 1938: 173 *pl.* 53 *f.* 15, *pl.* 100 *fs.* 6–7.

fuscoviolaceum Bres. 1903 (Poland). — *Helicobasidium* Pilát 1957. — Couch 1938: 224 *pl.* 45 *fs.* 4, 5, *pl.* 107 *f.* 11.

galzinii Bourd. 1922 (France). — Bourd. & G. 1928: 8 *f.* 5; Couch 1938: 160 *pl.* 44 *f.* 9, *pl.* 100 *fs.* 3–5.

marianii Bres. 1905 (Italy). — Couch 1938: 134 *pl.* 17, *pl.* 26, *pl.* 72 *fs.* 6–11.

orbiculare (Dur. & Lév.) Donk 1966 (1). — *Thelephora* Dur. & Lév. 1846–9: 16 *pl.* 33 *f.* 7 (Tunisia).

Hypochnus michelianus Cald. 1860 (Italy) (n.v.); fide Cald. 1864 (Cci 1): 390. — *Corticium* Fr. 1874; *Septobasidium* Pat. 1897. — Cald. 1864 (Cci 1): 390 & 1864 (Cci 2): *pl.* 1 *f.* 2 (*Hypochnus*); Kühner 1926 (Bot 17): 18 *fs.* 2, 3; Couch 1938: 194 *pl.* 44 *fs.* 1–4, *pl.* 100 *fs.* 8–11 (*Septobasidium*).

quercinum (Bagl.) Sacc. 1916 (2). — *Hypochnus* Bagl. 1872 (Italy) (n.v.) [cf. 1872 (NGI 4): 233]; ≡ *Corticium bagliettoanum* Fr. 1874; *Hypochnus* Sacc. 1888;

[*Septobasidium*]

Stereum Pat. 1900; *Septobasidium* Bres. 1905. — Bres. 1905 (Am 3): 164; Bourd. & G. 1928: 7 f. 3; Couch 1938: 241 pl. 49 fs. 4–6, pl. 105 f. 2 (*Septobasidium bagliettoanum*).

TREMELLALES Dumort. 1829

Auriculariales J. Schroet. 1885.

Aporpiales Bond. & M. Bond. 1960.

AURICULARIINEAE Engl. 1892

Ecchynineae Rea 1922.

Stilbaceae Fr. 1821 (n.v.p.).

Auriculariaceae Fr. 1838.

Stilbaceae Corda 1838, not ~ Kunth 1831.

Phleogenaceae Weese 1920.

Ecchynaceae Rea 1922.

Cystobasidiaceae Gäum. 1926.

Stilboideae S. F. Gray 1821.

Auricularioideae Sacc. 1888, not ~ Fr. 1825.

Platyglloeideae Lindau 1897.

Stypelloideae Lindau 1897.

Stilbeae Fr. 1825.

Auriculariae Fr. 1835 (1836).

Phleogeneae Killerm. 1928.

SPECIAL LITERATURE.—McNabb, 1965f.

ACHROOMYCES Bon. (3, 4)

1851 [1958 (Ta 7): 165]. — Monotype: *Achroomyces tumidus* Bon.

Platyglloea J. Schroet. 1887 [1958 (Ta 7): 240]. — Lectotype: "*Pl[atyglloea] nigricans* (Fries 1822? *Agyrium n[igricans] a. minus*)" sensu J. Schroet.

Tachaphantium Bref. 1888 [1958 (Ta 7): 244]. — Monotype: *Tachaphantium tiliae* Bref.

SPECIAL LITERATURE.—Bandoni, 1957a; Boudier, 1887; von Höhnelt, 1904.

Platyglloea arrhytidiae L. Olive 1951 (U.S.A., North Carolina). — L. Olive 1951 (BTC 78): 103 fs. 1–10; McNabb 1965 (TBS 48): 190.

disciformis (Fr.) Donk 1958 (3). — *Tremella* Fr. 1822 (Sweden); *Cryptomyces* Fr. 1849; *Epidochium* Sacc. 1884, misapplied; *Platyglloea* Neuh. 1936. — L. Olive 1951 (BTC 78): 105, in obs., fs. 19–27; Bandoni 1957 (M 48): 831 f. 1; Pilát 1957 (SnP 13): 139 f. 3; M. P. Christ. 1959 (DbA 19): 18 f. 7 (*Platyglloea*).

Dacrymyces pallens Fic. & Sch. 1823: 286 (Germany); fide Donk 1964 (PNA 67): 15.

Stictis tiliae Lasch 1844 (Germany) (5). — *Achroomyces* Höhn. 1904. — Höhn. 1904 (Am 2): 272 (*Stictis*, *Achroomyces*); Neuh. 1924 (BAM 8): 257 fs. 2, 4: 11, tpl. 1 (*Achroomyces*).

? *Achroomyces tumidus* Bon. 1851 (Germany) (3); cf. Höhn. 1904 (Am 2): 271 & Donk 1958 (Ta 7): 165. — *Myxosporium* Sacc. 1884. — Bon. 1851: 135 pl. 11 f. 231.

Achroomyces pubescens Riess 1853 (Germany); fide Höhn. 1904 (Am 2): 271, 273 = *Achroomyces tiliae* (Lasch) Höhn. — *Myxosporium* Sacc. 1892. — Riess 1853 (BZ 11): 135 pl. 3 fs. 21–23.

Platyglloea nigricans J. Schroet. 1887 (Prussian Silesia, now Poland) (6); fide Höhn. 1904 (Am 2): 271, 273 = *Achroomyces tiliae* (Lasch) Höhn.; fide Romell in

[Achromyces]

herb. & apud Neuh. 1936 (ABS 28¹): 57 = *Tremella disciformis*. — J. Schroet. 1887: 384.

Tachaphantium tiliae Bref. 1888 (Germany): fide Höhn. 1904 (Am 2): 271, 273 = *Achromyces tiliae* (Lasch) Höhn. — *Platyglea* Sacc. 1888. — Bref. 1888 U. 7: 79 *pl.* 4 *fs.* 12–15 (*Tachaphantium*); Bourd. & G. 1928: 14 *f.* 9 (*Platyglea*).

effusus (J. Schroet.) Mig. 1910–1. — *Platyglea* J. Schroet. 1887 (Prussian Silesia, now Poland). — Wak. & Pears. 1919 (TBS 6): 138 *fig.*; Bourd. & G. 1928: 12; M. P. Christ. 1959 (DbA 19): 19 *f.* 9 (*Platyglea*).

Platyglea fimetaria (Schum. per Pers.) Höhn. 1917. — *Tremella* Schum. 1803 (Denmark) (d.n.) per Pers. 1822; *Helicobasidium* Boud. 1887; *Exobasidium* Lapl. 1894. — Boud. 1887 (JBM 1): 332 *fig.* (*Helicobasidium*); G. W. Mart. 1952 (SIA 19³): 96 *tpl.* 3 *f.* 28; Bandoni 1957 (M 48): 831; M. P. Christ. 1959 (DbA 19): 18 *f.* 6 (*Platyglea*).

Platyglea fimicola J. Schroet. 1887 (Prussian Silesia, now Poland); fide Höhn. 1917 (Am 15): 293. — *Achromyces* Mig. 1910–1. — J. Schroet. 1887: 384.

Platyglea micra Bourd. & G. 1924 (France). — Bourd. & G. 1928: 13 *f.* 8.

Platyglea microspora McNabb 1965 (Scotland). — McNabb 1965 (TBS 48): 191 *fs.* 1A, B.

Platyglea peniophorae Bourd. & G. 1909 (France). — Bourd. & L. Maire 1920 (BmF 36): 69; Wak. & Pears. 1923 (TBS 8): 219 *f.* 5; Bourd. & G. 1928: 13 *f.* 7; ? G. W. Mart. 1940 (M 32): 688 *f.* 5; L. Olive 1954 (BTC 81): 329 *fs.* 5–12; Bandoni 1957 (M 48): 826 *f.* 7; M. P. Christ. 1959 (DbA 19): 18 *f.* 8; Poelt & Oberw. 1962 (Bba 35): 94 *f.* 14.

Corticium ferax Ell. & Ev. 1897 (AN 31): 339 (Canada) (nom. conf.) (n.v.); fide D. P. Rog. 1949 (Fa 3): 489 = *Platyglea peniophorae* plus its substratum, a resupinate 'theleporaceous' fungus.

Platyglea sebacea (B. & Br.) McNabb 1965. — *Dacrymyces* B. & Br. 1870 (nom. nud.), 1871 (England). — B. & Br. 1871 (AM IV 7): 430 *pl.* 18 *f.* 2 (*Dacrymyces*); McNabb 1965 (TBS 48): 188 *fs.* 1C–E (*Platyglea*).

Platyglea miedzyrzecensis Bres. 1903 (Poland); fide McNabb 1965 (TBS 48): 188. — Bres. 1903 (Am 1): 113 *pl.* 3 *f.* 3; Bourd. & G. 1928: 13; L. Olive 1947 (M 39): 91 *f.* 1.

Platyglea vestita Bourd. & G. 1924 (France). — Bourd. & G. 1928: 14 *f.* 10; A. Pears. 1928 (TBS 13): 69 *f.* 1; M. P. Christ. 1959 (DbA 19): 19 *f.* 10; Reid & Austw. 1963 (GN 18): 332.

ATTRACTIELLA Sacc. (7)

1886 [1958 (Ta 7): 167]. — *Atractiella* Sacc. apud Sacc. & Malbr. 1883 (nom. prov.). — Monotype: *Atractium brunaudianum* Sacc. apud Sacc. & Malbr.

brunaudiana (Sacc. apud Sacc. & Malbr.) Sacc. 1886. — *Atractium* Sacc. apud Sacc. & Malbr. 1883 (France). — Sacc. 1886 (SF 4): 579.

AURICULARIA Bull. per Mérat (8)

1821 [1958 (Ta 7): 168; 1963 (Ta 12): 165]. — *Auricularia* Bull. 1785 (nom. nud.) ex Juss. 1789, Bull. 1791 (d.n.). — Lectotype: *Auricularia tremelloides* Bull. — Ssensu Brongn. 1822 (type) → *Hirneola*; sensu Fr. 1825 = *Stereum*; sensu Wahlenb., in part → *Exidia*.

Agarico-gelucidium Paul. 1793 (d.n.) [1958 (Ta 8): 166]. — Lectotype: *Agarico-gelucidium villosum* Paul.

Zonaria Roussel 1806 (d.n.), not ~ Drap. ex Web. & Mohr 1805 (Dictyotaceae, Phaeophyceae), not ~ Ag. 1817 (Dictyotaceae, Phaeophyceae, nom. cons.) [1958 (Ta 7): 250]. — Lectotype: "Zôn[aire] violette" [= *Auricularia tremelloides* var. *violacea* Bull.].

Oncomyces Kl. 1843 [1958 (Ta 7): 237; 1963 (Ta 12): 166]. — Lectotype: *Phlebia mesenterica* (Dicks. per S. F. Gray) Fr.

Patila Adans. 1763 (d.n.) per O.K. 1891, not *Patella* ~ Wigg. 1780 (d.n.) per Morg. 1902 (n.v.) (Pezizales) [1958 (Ta 7): 238]. — Lectotype: *Agaricum* ordo VIII species 5 Mich.

SPECIAL LITERATURE.—Colin & Quillet, 1932; Donk, 1952; Kobayasi, 1942; Lowy, 1951, 1952; Martin 1943.

mesenterica (Dicks. per S. F. Gray) Pers. 1822 (9). — *Helvella* Dicks. 1785 (Great Britain) (d.n.), not ~ Schaeff. 1774 (d.n.), not ~ Holm 1781 (d.n.); *Thelephora* Gmel. 1791 (d.n.); *Merulius* Schrad. 1794, Pers. apud Moug. & Nestl. 1815 (d.n.); *Stereum* (Dicks.) per S. F. Gray 1821; *Thelephora* Schleich. 1821; *Merulius* Steud. 1824; *Phlebia* Fr. 1828; *Oncomyces* Kl. 1832 (nom. nud.), 1843; *Patila* O.K. 1891; ≡ *Auricularia mesenteriformis* Brongn. 1824 ("Link," error?), Link 1833. — Bolt. 1791: 172 pl. 172 (*Helvella*); Pers. 1801: 571 (*Thelephora*); Fr. 1828 E. 1: 154 (*Phlebia*); Bref. 1888 U. 7: 76 pl. 4 fs. 1b, 2, 10, 11; J. Schroet. 1888: 386; Neuh. 1924 (BAM 8): 260 f. 4: 14, tpl. 2 fs. 1–8; Bourd. & G. 1928: 15; Bres. 1932 (BIm 23): pl. 1108; Neuh. 1936 (ABS 281): 56 pl. 8 (*Auricularia*).

Helvella violacea With. 1776 (d.n.); fide Dicks. 1785 P.c. 1: 20. — [*Agaricus mesentericus violacei coloris* Dill. sensu Ray 1696: 336 & 1724: 22 (England) (69)]; ≡ *Tremella violacea* Relh. 1785: 442 (typonym) (d.n.), not ~ Schrank & Moll 1785 (d.n.), not ~ Pers. 1801 (d.n.) & (Pers. per S. F. Gray) Pers. 1822; not ~ (Bull.) Pers. 1818 (d.n.).

Helvella corrugata With. 1776 (d.n.). — [*Fungus membranaceus expansus* Ray 1696: 334 & 1724: 18 (England)]; ≡ *Tremella corrugata* Relh. 1785 (typonym) (d.n.); *Auricularia* Sow. 1800 (d.n.). — Ssensu Sow. 1800: pl. 290 (*Auricularia*); fide Dicks. 1790 P.c. 2: 28 & Kl. 1832 (Li 7): 195.

Auricularia tremelloides Bull. 1786 (generic name unpublished), 1791 (France) (d.n.); fide Fr. 1828 E. 1: 154. — *Thelephora* DC. 1805 (d.n.); *Thelephora* (Bull.) per St-Am. 1821; *Auricularia* Mérat 1821. — Bull. 1786: pl. 290; 1791 H.: 278; Quél. 1888: 24.

Helvella mesenteriformis Vill. 1789: 1046 ("mezenteriformis") (France) (d.n.).

Agarico-gelucidium villosum Paul. 1793 T. 2: 96 (descr.), Index (Italy) (d.n.). — [*Agaricum squamosum*, & *Lichenosum* . . . Mich. 1729: 124 pl. 66 f. 4].

Exidia lobata Sommerf. 1827 [cf. Fr. 1828 E. 2: 34]; Fr. 1828 (Norway); fide Quél. 1888: 24 (var.). — *Auricularia* Fr. 1838; *Patila* O.K. 1891. — Mont. 1842 C.: 373; Berk. 1860: 272 pl. 18 f. 1; Bref. 1888 U. 7: 78 pl. 4 f. 1a (*Auricularia*).

CYSTOBASIDIUM (Lagerh.) Neuh.

1924 (BAM 8): 274, 277 [1958 (Ta 7): 176]. — *Iola* subgen. *Cystobasidium* Lagerh. 1898. — Monotype: *Iola lasioboli* Lagerh.

SPECIAL LITERATURE.—Lagerheim, 1898.

lasioboli (Lagerh.) Neuh. 1924. — *Iola* Lagerh. 1898 (Norway). — Lagerh. 1898 (BsV 24⁴): 15 pl. 3 fs. 8–13 (*Iola*).

EOCRONARTIUM Atk.

1902 ≡ *Eucronartium* Sacc. & D. Sacc. 1905 [1958 (Ta 7): 195]. — Monotype: *Eocronartium typhuloides* Atk.

Protopistillaria J. Rick 1933 [1958 (Ta 7): 241]. — Monotype: *Protopistillaria muscigena* J. Rick.

Musci clavus Velen. 1939 (nom. prov.) [1958 (Ta 7): 207]. — Monotype: *Clavaria falcatispora* Velen.

SPECIAL LITERATURE.—Atkinson, 1902; Fitzpatrick, 1918a, 1918b; von Höhnelt, 1909; Stanley, 1940.

muscicola (Pers. per Fr.) Fitzp. 1918. — *Clavaria* Pers. 1799 (Germany) (d.n.); *Pistillaria* (Pers.) per Fr. 1821; *Clavaria* Pers. 1822; *Typhula* Fr. 1838; *Ceratella* Big. & Guill. 1913. — Ssensu Fr. 1838: 585 (“Nostra . . . tuberculo radicali caret”) (*Typhula*); Fitzp. 1918 (Ph 8): 197, 212 fs. 1–4, pl. 1; 1918 (AJB 5): 397 pls. 30–32, cytology; Lloyd 1922 (LMW 7): 1108 pl. 189 f. 2041, notes; D. P. Rog. 1933 (SIa 15³): 17; Stanley, 1940 (n.v.); L. Olive 1948 (M 40): 586 fs. 2: 1–11; Y. Kobay. 1954 (Nag 4): 43 f. 35; Pilát 1957 (SnP 13): 133 pl. 17 (*Eocronartium*).

Clavaria muscigena P. Karst. 1868 (NfF 9): 373 (Finland), not ~ Schum. per Pers. 1822; fide Fitzp. 1918 (Ph 8): 211, 212. — *Typhula* P. Karst. 1881; *Eocronartium* Höhn. 1909. — Höhn. 1909 (SbW 118): 1462, 1463 (*Clavaria*, *Eocronartium*).

Anthina muscigena Speg. 1882 (South America); fide G. W. Mart. 1952 (SIa 19³): 87. — *Atractiella* Speg. 1910. — Speg. 1910 (ABA 20): 447 f. 67 (*Atractiella*).

Eocronartium typhuloides Atk. 1902 (U.S.A., New York); fide Höhn. 1909 (SbW 118): 1463 = *Clavaria muscigena* P. Karst.; fide Fitzp. 1918 (Ph 8): 212. — *Helicobasidium* Pat. 1920. — Atk. 1902 (JM 8): 107.

Typhula bresadolae Sacc. & Dalla C. apud Sacc. 1916: 1256 (Italy).

Clavaria falcatispora Velen. 1939: 166 (Czechoslovakia); fide Pilát 1957 (SnP 13): 134 & Donk 1958 (Ta 7): 207.

Protopistillaria muscigena J. Rick 1933 (Eg 18): 210 (Brazil); fide G. W. Mart. 1952 (SIa 19³): 87.

HELICOBASIDIUM Pat. (10)

1885 ≡ *Helicobasis* Clem. & Sh. 1931 [1958 (Ta 7): 200]. — Monotype: *Helicobasidium purpureum* Pat.

[*Helicobasidium*]

- Stylinella* J. Schroet. 1887 [1958 (Ta 7): 244]. — Monotype: *Hypochnus purpureus* L. Tul.
Rhizoctonia DC. 1815 (nom. anam.) (d.n.) per Fr. 1821 [1962 (Ta 11): 97]. — Lectotype:
Sclerotium crocorum Pers.
Thanatophytum Nees 1816 (nom. anam.) (d.n.) per S. F. Gray 1821 [1962 (Ta 11): 101].
 — Monotype: *Sclerotium crocorum* Pers.

SPECIAL LITERATURE.—Boyer, 1895; Buddin & Wakefield, 1924, 1927, 1929; de Candolle, 1815; Costantin, 1924; Duggar, 1915; Eriksson, 1915; Faris, 1921; Hering, 1962; van der Lek, 1917; Patouillard, 1885; Peyronel, 1939; Rostrup, 1886; Watson, 1929; Whitney, 1954.

brebissonii (Desm.) Donk 1958 (10). — *Protonema* Desm. 1834 (France). — Desm. 1834 P.c.: No. 651; 1836 (ASn II 6): 242 (*Protonema*).

Hypochnus purpureus L. Tul. 1865 (France); fide L. Tul. 1865 (ASn V 4): 295 & Donk 1958 (Ta 7): 164. — *Stylinella* J. Schroet. 1887, not ~ (Pat.) Neuh. 1924; *Helicobasidium* Lind 1908 ["(Tul.) Pat."], not ~ Pat. 1885; *Helicobasis* Clem. & Sh. 1931. — Tul. 1872 (ASn V 15): 227 pl. 10 fs. 1, 2 (*Hypochnus*); J. Schroet. 1887: 384 (*Stylinella*); Buddin & Wak. 1927 (TBS 12): 122 pls. 11-14; Vienn.-B. 1949: 1179 fs. 536-538 (*Helicobasidium*).

Helicobasidium purpureum Pat. 1885 (France), not ~ (L. Tul.) Lind 1908; cf. Donk 1958 (Ta 7): 164, 201. — *Stylinella* Neuh. 1924, not ~ (L. Tul.) J. Schroet 1887; = *Exobasidium asari* Quél. 1886 (not accepted as a distinct sp., cf. Quél. 1886: viii). — G. Boyer 1895 (AEM 8): repr. pls. 8, 9; Bourd. & G. 1928: 9; G. W. Mart. 1952 (SIa 19^a): 98 f. 31; M. P. Christ. 1950 (Fr 4): 90 f. 2; 1959 (DbA 19): 20 f. 11.

Corticium lilacinum (Quél.) Big. & Guill. 1913, not ~ B. & Br. 1873, not (J. Schroet.) Sacc. 1888. — *Corticium sanguineum* var. Quél. 1886 (n.v.p.), 1888: 9 (France).

Thelephora rhizoctoniae Frank 1897 (ZlH): 167-168 (n.v.) [cf. 1897 (CBA 4): 781] (Germany).

Hypochnus violaceus Erikss. 1913 (RgB 25): 28 f. 4 (Sweden); fide Dugg. 1915 (AMo 2): 408 = *Rhizoctonia crocorum*. — The description covers (perhaps not even sterile) fruitbodies rather than the imperfect (or *Rhizoctonia*) state.

Tuber parasiticum Bull. 1789 (France) (nom. anam.) (d.n.); = *Sclerotium crocorum* Pers. 1801 (d.n.); *Rhizoctonia* DC 1815 (d.n.); *Thanatophytum* Nees 1816 (d.n.); *Rhizoctonia* (Pers.) per Mérat 1821: Fr. 1822; *Thanatophytum* S. F. Gray 1821; *Sclerotium* Spreng. 1827; = *Rhizoctonia violacea* Tul. 1851. — Bull. 1789: pl. 456; 1791 H.: 81 (*Tuber parasiticum*); Tul. 1851: 188 pl. 8 f. 4, pl. 9, pl. 20 fs. 3-4; Prillieux 1891 M. 2: 144 fs. 282-287; Lek 1917 (MRL 12): 49 pls. 1-9 (*Rhizoctonia violacea*); Dugg. 1915 (AMo 2): 404 fs. 1-4; Faris 1921 (Ph 11): 414 (*Rhizoctonia crocorum*).

Tuber croci Dubois 1803: 150 (France) (nom. anam.) (d.n.); fide DC. 1815: 111 = *Rhizoctonia crocorum*.

[*Helicobasidium*]

Rhizoctonia medicaginis DC. 1815: 111 (France) (nom. anam.) (d.n.); fide Tul. 1851: 188 = *Rhizoctonia violacea*. — *Rhizoctonia* DC. per Mérat 1821: Fr. 1822; *Sclerotium* Spreng. 1827, not ~ Biv. 1816 (root-tubercles). — DC. 1815 (MMP 2): 216 pl. 8; Kühn 1858: 236, 245, xix pl. 7 fs. 3-16; Erikss. 1915 (ABS 14¹²): 2 fs. 1-3, exclusive of perithecial 'state'.

Rhizoctonia rubiae Decaisne 1837: 55 (nom. anam.); fide Dugg. 1915 (AMo 2): 408 = *Rhizoctonia crocorum*.

Helminthosporium rhizoctonon Rab. 1854 (n.v.p.), 1855 Kl.: No. 1970 [cf. 1855 (BZ 13): 299 & 1855 (Fl 38): 271] (nom. anam. & ? conf.) (11); fide Mont. [cf. Kühn 1858: 245] = *Rhizoctonia medicaginis*. — ≡ *Rhizoctonia dauci* Rab. 1855 Kl. II: No. 74; fide Dugg. 1915 (AMo 2): 408, 409 = *Rhizoctonia crocorum*. — Kühn 1856 (BZ 14): 107.

Rhizoctonia asparagi Fuck. ex Erikss. 1915 (ABS 14¹²): 16 fs. 7-12 (Germany) (nom. anam.) (12); fide Dugg. 1915 (AMo 2): 408 = *Rhizoctonia crocorum*. — *Rhizoctonia asparagi* Fuck. 1865, 1870 (nom. nud.).

M.—*Rhizoctonia solani* Kühn sensu Thüm. 1881 M.u.: No. 1797; fide Dugg. 1915 (AMo 2): 409 = *Rhizoctonia crocorum*.

Incertae sedis

holospirum Bourd. 1922 (France). — Boud. & G. 1928: 10 f. 6.

Helicobasidium sp. — *Stypinella hypochnoidea* Höhn. 1905 (Am 3): 324 (nom. conf.); fide D. P. Rog. 1950 (Fa 4): 38 = fruitbody of *Pellicularia flavescens* (Bon.) D. P. Rog. [sensu D. P. Rog. = *Utharobasidium* spp.] overgrown by a species of *Helicobasidium* [sensu lato]. — *Helicobasidium* (Höhn.) Höhn. 1907, Lind 1908, Sacc. & Trott. 1912.

HELICOGLOEA Pat. apud Pat. & Lag. (13)

1892 [1958 (Ta 7): 201]. — Monotype: *Helicogloea lagerheimii* Pat. apud Pat. & Lag.

SPECIAL LITERATURE.—Baker, 1936, 1946; Boedijn, 1937; Linder, 1929.

graminicola (Bres.) G. E. Bak. 1936. — *Saccoblastia* Bres. 1903 (Poland). — G. E. Bak. 1936 (AMo 23): 90 pl. 13 f. 74.

lagerheimii Pat. apud Pat. & Lag. 1892 (Ecuador) (14, 22). — *Platyglea* Sacc. & Syd. 1899. — G. E. Bak. 1936 (AMo 23): 72, 92 pls. 7-12, pl. 13 fs. 77, 78, pl. 14; G. W. Mart. 1952 (SIa 19³): 93; L. Olive 1948 (M 40): 587 fs. 1: 8-20; 1958 (BTC 85): 15; M. P. Christ. 1959 (DbA 19): 15 f. 4; McNabb 1964 (NZB 2): 405 fs. 1d-g.

Helicobasidium inconspicuum Höhn. 1908 (SbW 117): 1021 (Austria); fide G. E. Bak. 1946 (M 38): 631, 632.

Saccoblastia sebacea Bourd. & G. 1909 (France); fide G. E. Bak. 1936 (AMo 23): 92. — Wak. & Pears. 1923 (TBS 8): 218 f. 4; Bourd. & G. 1928: 5; D. P. Rog. 1933 (SIa 15³): 18 tpl. 2 fs. 23-26.

[*Helicogloea*]

subardosiaca (Bourd. & G.) Donk 1966 (14). — *Saccoblastia sebacea* subsp. *S. subardosiaca* Bourd. & G. 1928 (France); *Saccoblastia* Linder 1929. — Bourd. & G. 1928: 5 (*Saccoblastia sebacea* subsp. ~).

HERPOBASIDIUM Lind (15)

1908 [1958 (Ta 7): 201]. — Holotype: *Gloeosporium filicinum* Rostr.

? *Glomerularia* Peck 1880 (RNS 32): 43 (nom. anam.), not ~ H. Karst. 1849 (BZ 7): 368 (Deuteromycetes, Moniliales); ≡ *Glomopsis* D. M. Hend. 1961 (NEd 23): 500. — Monotype: *Glomerularia corni* Peck. — (16).

SPECIAL LITERATURE.—Boudier, 1900; Gould, 1945; Jackson, 1935; Lind, 1908; Reimers, 1958.

deformans Gould 1945 (U.S.A., Iowa). — Gould 1945 (IaJ 19): 317 fs. 1-48; G. W. Mart. 1952 (SIA 19⁸): 90 t^{pl}. 3 f. 29; McNabb 1964 (NZB 2): 403 fs. 1a-c. *Glomopsis lonicerae* (Dearn. & House) ex Donk 1966 (U.S.A., New York) (nom. anam.) (16); fide Gould 1945 (IaJ 19): 316. — *Glomerularia* Dearn. & House 1923 (nom. nud. & anam.); *Glomopsis* D. M. Hend. 1961 (nom. prov. & nud.).

filicinum (Rostr.) Lind 1908. — *Gloeosporium* Rostr. 1881 (Denmark); *Helicobasidium* Killerm. 1928. — Lind 1908 (ABS 7⁸): 7 pls. 1, 2; 1913: 343 f. 28; H. S. Jacks. 1935 (M 27): 554 fs. 1, 3, 4; Dennis & Wak. 1946 (TBS 29): 143 f. 2; Pilát 1957 (SnP 13): 136 f. 2; M. P. Christ. 1959 (DbA 19): 13 f. 2.

Exobasidium brevieri Boud. 1900 (BmF 16): 15 pl. 1 f. 1 (France); fide Lind 1908 (ABS 7⁸): 2, 7.

struthiopteridis (Rostr.) Lind 1913. — *Gloeosporium* Rostr. 1889 (Denmark) (nom. anam.); *Uredinopsis* Lind 1908, misapplied, not ~ C. Störmer 1895 (Uredinales). — Lind 1913: 345 pl. 6 fs. 72, 73; M. P. Christ. 1959 (DbA 19): 13 f. 3.

HIRNEOLA Fr. (8)

1848 (nom. cons. prop.), not ~ Fr. 1825 ('Stereaceae'), not ~ Velen. 1939 ('Agaricales') [1958 (Ta 7): 202]. — Holotype: "*Peziza nigra* Sw." [= *P. nigricans* Sw. per Fr.].

Conchites Paul. 1791, 1793 (d.n.) [1958 (Ta 7): 174; 1963 (Ta 12): 166]. — Lectotype: "*Conchites auricula judae*".

Laschia Fr. 1830: Fr. 1832 (nom. rej. prop.), not ~ Jungh. 1838 ('Polyporaceae') [1958 (Ta 7): 206]. — Monotype: *Laschia delicata* Fr.

Seismosarca Cooke 1889 [1958 (Ta 7): 243]. — Monotype: *Seismosarca hydrophora* Cooke. — Sensu Lloyd = *Ductifera* Lloyd (extra-European).

Auriculariella (Sacc.) Clem. 1909 [1958 (Ta 7): 172]. — *Laschia* subgen. *Auriculariella* Sacc. 1888. — Lectotype: *Laschia delicata* Fr.

M.—*Auricularia* Bull. sensu Paul. 1808, Brongn. 1822 [1958 (Ta 7): 170; 1963 (Ta 12): 165].

SPECIAL LITERATURE.—Banerjee, 1956, 1957; de Brondeau, 1845; Buchwald, 1928; Donk, 1952; Green, 1925; Hauerslev, 1956; Le Goc, 1913, 1914; Lowy, 1951, 1952.

auricula-judae (Bull. per St-Am.) Berk. 1860 (17, 18). — *Tremella* Bull. 1788, (d.n.); *Peziza* Bull. 1791 (d.n.) per St-Am. 1821; *Tremella* Nocca & Balb. 1821,

[Hirneola]

Schleich. 1821; *Exidia* Fr. 1822, misapplied at least in part; *Auricularia* Wettst 1885; = *Tremella auricula* L. 1753 (Italy) (d.n.); *Peziza* L. 1767 (d.n.), not ~ Batsch 1783 (d.n.); *Merulius* Roth 1789 (d.n.); *Helvella* Schrank 1789 (d.n.); *Tremella* L. per Hook. 1821; *Peziza* Mérat 1821; *Exidia* Wallr. 1833; *Hirneola* H. Karst. 1880 (n.v.); *Auricularia* Underw. apud A. R. Northrop 1902; = *Helvella sambucina* Scop. 1772 ("sambuccina") (d.n.); *Auricularia* (Scop.) per Sacc. 1873 ["(Scop.) Mart."], not ~ Mart. per Fic. & Sch. 1823, synonym; = *Auricularia tremellae* Wibel 1799 (d.n.); = *Auricularia sambucina* Mart. 1817 (d.n.) per Fic. & Sch. 1823, Opiz 1823, not ~ (Scop.) per Sacc. 1873, synonym; = *Gyraria auricularis* S. F. Gray 1821; *Auricularia* G. W. Mart. 1943; *Hirneola* Donk 1949, not ~ (Fr.) Fr. 1848; = *Auricularia sambuci* Pers. 1822; = *Auricularia judae* Wahlenb. 1826, at least in part. — Bull. 1788: *pl.* 427 *f.* 2 (*Tremella auricula-judae*); Corda 1839 I. 3: 35 *pl.* 9 *f.* 137 (*Exidia a.-j.*); Berk. 1860: 289 *pl.* 18 *f.* 7; Bary 1866: 116 *f.* 47, basidia (*Hirneola a.-j.*); Bref. 1888 U. 7: 70 *pl.* 4 *fs.* 3-9 (*Auricularia sambucina*); Sapp.-Tr. 1896 (Bot 5): 53 *fs.* 3-5, 6C; Bourd. & G. 1928: 15 (*Auricularia a.-j.*); Bres. 1932 (BIm 23): *pl.* 1109 (*Hirneola auricula*); Banerjee 1956 (PSI 22): 318 *pl.* 28 *fs.* 1, 2 (*Auricularia a.-j.*); Poelt & Jahn 1963: *pl.* 26 (*Auricularia auricula*). — Sensu Fr., at least in part → *Exidia glandulosa* (forma).

Tremella caraganae (Pers.) ex H. Mart. [1812? (r.v.)], 1817 (d.n.). — [*Tremella auricula-judae* var. "β. *Trem. Caraganae*" Pers. 1801: 625 (Germany?)].

Merulius cucullatus Brond. 1828: 11 *pl.* 2 (France), not ~ Jungh. 1838; fide Brond. 1845 (AlB 14): 123 = *Auricularia sambucina* Mart. (var.). — *Cantharellus* Duby 1830: Fr. 1832; *Auricularia* Quél. 1886; = *Guepinia dubyi* Oud. 1920.

Auricula judae O.K. 1891 (n.v.p.) (Italy). — [*Fungus membranaceus* . . . "Auricula Judae vulgo". Batt. 1755: 25 *pl.* 3 *f.* F].

Auricularia lactea (Quél.) Big. & Guill. 1913. — *Auricularia auricula-judae* var. Quél. 1886: 207 (France).

KRIEGERIA Bres.

1891, not ~ Rab. 1878 (nom. prov.) ex Höhn. 1914 ("Winter") [1958 (Ta 7): 206]; = *Xenogloea* H. & P. Syd. 1919 [1958 (Ta 7): 250]. — Monotype: *Kriegeria eriophori* Bres.

SPECIAL LITERATURE.—Bresadola, 1891; Kao, 1956.

eriophori Bres. 1891 (Germany). — *Platygloea* Höhn. 1909; *Xenogloea* H. & P. Syd. 1919; = *Septogloea dimorphum* Sacc. 1892. — Bres. 1891 (Rm 13): 14 *pl.* 113 *fig.*; Höhn. 1909 (SbW 118): 1157 (*Kriegeria*); G. W. Mart. 1952 (SIa 19³): 88; Kao 1956 (M 48): 288 *fs.* 1-40 (*Xenogloea*).

MYCOGLOEA L. Olive (19)

1950 [1958 (Ta 7): 207]. — Holotype: *Mycogloea carnosa* L. Olive.

SPECIAL LITERATURE.—von Höhnel, 1917; Olive, 1950.

[Mycogloea]

macrospora (B. & Br.) McNabb 1965 (20). — *Dacrymyces* B. & Br. (England). — B. & Br. 1873 (AM VI 11): 343 *pl.* 7 *f.* 1 (*Dacrymyces*); McNabb 1965 (TBS 48): 187 *fs.* 1F–H (*Mycogloea*).

Fusisporium obtusum Cooke 1876 (G 5): 58 (Scotland); fide Höhn. 1917 (Am 15): 294 = *Mytilloopsis carpinea* [sensu Höhn.] & McNabb 1965 (TBS 48): 187. — *Fusarium* Sacc. 1886.

M.—*Tremella fragiformis* var. *carpinea* A. & S. sensu Höhn. 1917 (*Mytilloopsis carpinea*) (20). — Höhn. 1917 (Am 15): 294 (*Tremella fragiformis* var. *carpinea*; *Mytilloopsis*).

PHLEOGENA Link

1833 [1958 (Ta 7): 239; 1963 (Ta 12): 166]. — Monotype: *Onygena faginea* Fr. per Fr.

Botryochaete Corda 1854 [1958 (Ta 7): 172], not ~ J. Rick 1959. — Holotype: *Onygena faginea* Fr. per Fr.

Ecchyna Fr. 1849 (nom. prov.) ex Boud. 1885 ("Echyna") [1958 (Ta 7): 173, 178]. — Monotype: an unnamed fungus.

M.—*Pilacre* Fr. [1958 (Ta 7): 239] sensu Bref. 1888.

SPECIAL LITERATURE.—Beckwith, 1929; Boudier, 1888; Shear & Dodge, 1925; Weese, 1920.

faginea (Fr. per Fr.) Link 1833 (21). — *Onygena* Fr. 1818 (Sweden) (d.n.) per Fr. 1829; *Pilacre* B. & Br. 1850; *Botryochaete* Corda 1854; *Ecchyna* Fr. 1857 (generic name n.v.p.), Boud. 1885. — B. & Br. 1850 (AM II 5): 365 *pl.* 11 *f.* 5 (*Pilacre*); Corda 1854 I. 6: 47 *pl.* 9 *f.* 95 [plate distributed 1846] (*Botryochaete*); Lloyd 1923 (LMW 7): 1207; 1925 (LMW 7): 1356, 1360 *pl.* 336 *fs.* 3191, 3192, *pl.* 341 *fs.* 3231, 3232; Shear & Dodge 1925 (JaR 30): 407 *tpl.* 2 (*Pilacre*); Bourd & G. 1928: 16 (*Ecchyna*); Y. Kobay. 1954 (Nag 4): 45 *fs.* 30C, 36; Pilát 1957 (SnP 13): 146 *f.* 6, *pl.* 18 *f.* b; Reid & Austw. 1963 (GN 18): 332; McNabb 1964 (NZB 2): 408 (*Phleogena*).

Onygena decorticata Pers. 1799 (Germany) (d.n.) per Schw. 1822; cf. Fr. 1829: 209. — *Phleogena* G. W. Mart. 1944; ≡ *Cribaria onygena* Schum. 1803 (d.n.). — Pers. 1799 O. 2: 72 *pl.* 6 *f.* [9]; Hornem. 1806 (Fd 8 / F. 22): 8 *pl.* 1309 *f.* 2, Schumacher's drawing (*Onygena decorticata*); G. W. Mart. 1944 (SIa 18³): 69 *tpl.* 3 *f.* 27 (*Phleogena decorticata*).

? *Pilacre divisa* Berk. 1855 N.Z.: 197 (New Zealand); cf. McNabb 1964 (NZB 2): 409.

Pilacre petersii B. & C. apud B. & Br. 1859 (U.S.A., Alabama); cf. L. Tul. 1865 (ASn V 4): 293–294. — *Ecchyna* Pat. 1900. — L. Tul. 1865 (ASn V 4): 293; Tul. 1872 (ASn V 15): 235 *pl.* 12 *fs.* 5, 6 & cf. p. 228; Bref. 1888 U. 7: 27 *pls.* 1–3; Overh. 1911 (M 3): 165 *fs.* 1–4, *pl.* 9 *f.* 4.

? *Pilacre poricola* Richon 1878 (France). — *Ecchyna* Richon 1889. — Richon 1878 (BbF 24): 151 (*Pilacre*); 1889: 472 (*Ecchyna*).

PILACRELLA J. Schroet.

1887 [1958 (Ta 7): 240]. — Monotype: *Pilacrella solani* Cohn & Schroet. apud J. Schroet.

solani Cohn & Schroet. apud J. Schroet. 1888 (Prussian Silesia, now Poland). — *Pilacre* Sacc. 1892; *Ecchyna* Pat. 1900. — Cohn & Schroet. apud J. Schroet. 1888: 385.

SACCOBLASTIA A. Möll. (22)

1895 [1958 (Ta 7): 242]. — Lectotype: *Saccoblastia ovispora* A. Möll., often incorrectly identified with *Helicogloea lagerheimii* Pat. apud Pat. & Lag., fide Donk 1958 (Ta 7): 242.

SPECIAL LITERATURE.—Baker, 1936, 1946.

farinacea (Höhn.) Donk 1966 (23). — *Helicobasidium* Höhn. 1907 (Austria); *Helicogloea* D. P. Rog. apud G. W. Mart. 1944. — G. W. Mart. 1952 (SIa 19³): 94; M. P. Christ. 1959 (DbA 19): 16 f. 5 (*Helicogloea*).

Saccoblastia pinicola Bourd. & G. 1909 (France); fide D. P. Rog. apud G. W. Mart. 1944 (SIa 18³): 66. — *Helicogloea* G. E. Bak. 1936. — Bourd. & G. 1928: 4 f. 1 (*Saccoblastia*); G. E. Bak. 1936 (AMo 23): 89 pl. 12 fs. 72, 73; 1946 (M 38): 632 (*Helicogloea*).

Stypinella killermannii Bres. apud Killerm. 1922 (DbA 15): 34 pl. 1 f. 11 (Germany); fide L. Olive 1958 (BTC 85): 14. — *Helicobasidium* Bourd. & G. 1928, Killerm. 1928. — Pilát 1957 (SnP 13): 132 pl. 15 f. b (*Helicobasidium*).

STILBUM Tode per Mérat

1821: Fr. 1832 [1958 (Ta 7): 244; 1963 (Ta 12): 244]. — *Stilbum* Tode 1790 (d.n.). — Lectotype: *Stilbum vulgare* Tode.

SPECIAL LITERATURE.—Juel, 1898.

vulgare Tode per Mérat 1821: Fr. 1832. — *Stilbum* Tode 1790 (Germany) (d.n.); *Botryonipha* O.K. 1891. — Ssensu Corda 1837 I. 1: 20 pl. 5 f. 272B; Juel 1898 (BsV 24⁹): 13 pl. (1).

TREMELLINEAE J. Schroet. 1885

Tremellaceae Fr. per Fr. 1821.
Hyaloriaceae Lindau 1897.
Sirobasidiaceae Lindau 1897.
Aporpiaceae Bond. & M. Bond. 1960.
Tremelloideae S. F. Gray 1821.
Tremellodontoideae P. Karst. 1876.
Sebacinoideae C. W. Dodge 1928.
Protomerulioideae C. W. Dodge 1928.

Tremelleae Fr. 1825.
Exidiace Rab. 1844.
Exidiopsideae Lindau 1897.
Stypelleae Lindau 1897.
Protohydneae Lindau 1897.
Sirobasidiace Killerm. 1928.
Hyaloriace Killerm. 1928.

SPECIAL LITERATURE.—Bandoni, 1959; Bjørnekaer, 1944; Cooke, 1891; Costa, 1857; Neuhoﬀ, 1935-8; Schieferdecker, 1942, 1948; Wells, 1957.

APORPIUM Bond. & Sing. ex Sing.

1944 [1958 (Ta 7): 166]. — *Aporpium* Bond. & Sing. 1941 (nom. nud.). — Holotype: *Poria canescens* P. Karst.

SPECIAL LITERATURE.—Bondartsev & Bondartseva, 1960; Macrae, 1956; Teixeira & Rogers, 1955.

caryae (Schw.) Teix. & Rog. 1955. — *Polyporus* Schw. 1832 (U.S.A., Pennsylvania); *Poria* Cooke 1886. — Overh. 1923 (M 15): 211 fs. 6-7, pl. 21 f. 6, pl. 22 f. 1 (*Poria*); Teix. & Rog. 1955 (M 47): 410 fs. 1-9; Macrae 1956 (M 47): 813 fs. 1-18; Aoshima & al. 1962 (TmJ 4): 50 fs. 1, 2; Domański 1962 (Ffg 8): 510 f. 1; 1965 (Grz): 18 fs. 1, 2, pl. 1 f. 1, pl. 8 fs. 1, 3; McNabb 1964 (NZB 2): 411 fs. 1j, k (*Aporpium*).

? *Polyporus fendzleri* B. & C. 1868 ("Fendleri") (Venezuela); fide Lowe 1963 (M 55): 476. — *Polystictus* Cooke 1886; *Microporus* O.K. 1898; *Poria* Lowe 1947. — Lowe 1947 (Ll 10): 50.

Polyporus argillaceus Cooke 1878 (G 7): 1 (U.S.A., California), not ~ (Murrill) Overh. 1926; fide Teix. & Rog. 1955 (M 47): 413. — *Poria* Cooke 1886.

Poria canescens P. Karst. 1887 (Finland); fide Teix. & Rog. 1955 (M 47): 410. — *Aporpium* Bond. & Sing. ex Sing. 1944. — Bres. 1897 (AAR III 3): 79; Baxt. 1940 (PMi 25): 161 pl. 5.

Poria cordylina G. Cunn. 1947 (BPZ 72): 23, 39 f. 17 (New Zealand); fide Teix. & Rog. 1955 (M 47): 411, 414.

Poria pilatii Bourd. 1932 ("Tchécoslovaquie", now U.S.S.R., Ukraine); fide Teix. & Rog. 1955 (M 47): 411, 414. — *Aporpium* Bond. & Sing. ex Bond. 1953. — Bourd. 1932 (BmF 48): 230 pl. 25; Pilát 1942 (ACE 3): 408 f. 177, pl. 260.

M.—*Poria gilvescens* Bres. sensu Overh. 1942; fide Teix. & Rog. 1955 (M 47): 414 & Lowe 1959 (Ll 21): 104. — Overh. 1942: 46; Lowe 1946: 35.

BASIDIODENDRON J. Rick

1938 [1958 (Ta 7): 172]. — Monotype: *Basidiodendron luteogriseum* J. Rick.

SPECIAL LITERATURE.—Luck-Allen, 1963; Rogers, 1935; Wells, 1960; Whelden, 1935c.

caesiocinereum (Höhn. & L.) Luck 1963. — *Corticium* Höhn. & L. 1908 (Germany); *Gloeocystidium* Bourd. & G. 1913; *Sebacina* D. P. Rog. 1935; *Bourdotia* Bourd. & G. 1928 (nom. prov.), Lundell 1938, Pil. & Lindtn. 1938. — Höhn. & L. 1908 (SbW 117): 1116 f. 9 (*Corticium*); Bourd. & G. 1928: 261 (*Gloeocysti-*

[Basidiodendron]

dium); McGuire 1941 (Ll 4): 41 fs. 106-108 (*Sebacina*); M. P. Christ. 1950 (Fr 4): 93 f. 6; Malenç. 1954 (BmF 70): 121 f. 1D (*Bourdolia*); M. P. Christ. 1959 (DbA 19): 25 f. 15 (*Sebacina*); Wells 1960 (M 51): 552 f. 5 (*Bourdolia*); Luck 1963 (CJB 41): 1036 fs. 10-15 (*Basidiodendron*); Oberw. 1963 (Bba 36): 43 f. 7 (*Bourdolia*).

Sebacina cinerella Bourd. 1922 (France); fide Donk apud D. P. Rog. 1935 (SIa 17): 37. — *Bourdolia* Bourd. & G. apud Bourd. & L. Maire 1920 (generic name n.v.p.), Bourd. & G. 1928. — Bourd. & L. Maire 1920 (BmF 36): 71; Bourd. & G. 1928: 49 f. 27 (*Bourdolia*); D. P. Rog. 1933 (SIa 15^a): 12 tpl. 1 fs. 10-12 (*Sebacina*).

cinereum (Bres.) Luck 1963. — *Sebacina* Bres. 1900 (Italy); *Thelephora* Sacc. & Syd. 1902, not ~ (Pers.) per Fr. 1821; *Bourdolia* Bourd. & G. 1928. — Bres. 1900 F.t. 2: 99 pl. 210 f. 2 (*Sebacina*); Bourd. & G. 1928: 49 f. 26 (*Bourdolia*); D. P. Rog. 1933 (SIa 15^a): 12 tpl. 1 fs. 4-6; McGuire 1941 (Ll 4): 37 fs. 91-94; D. P. Rog. 1947 (PS 1): 96 (*Sebacina*); Wells 1957 (Ll 20): 56 f. 8 (*Bourdolia*); L. Olive 1958 (BTC 85): 24; M. P. Christ. 1959 (DbA 19): 24 f. 14 (*Sebacina*); Wells 1960 (M 51): 552 (*Bourdolia*); Luck 1963 (CJB 41): 1043 fs. 36A-46 (*Basidiodendron*); Oberw. 1963 (DbA 36): 46 f. 5 (*Bourdolia*).

Exidiopsis cystidiophora Höhn. 1905 (Am 3): 323 (Austria); fide Bourd. & G. 1928: 49.

Sebacina gloeocystidiata Kühner 1926 (France); fide Bourd. & G. 1928: 724. — Kühner 1926 (Bot 17): 26 f. 1.

Sebacina murina Burt 1926 (AMo 13): 337 (Mexico); fide D. P. Rog. 1935 (SIa 17): 41 & Luck 1963 (CJB 41): 1043, 1045.

Aleurodiscus guttulatus J. Rick 1934 (Bro 3): 165 (Brazil); fide Wells apud Lemke 1964 (CJB 42): 758.

Seismosarca stratos Viégas 1945 (Bra 5): 243 tpl. 7 (Brazil); fide Wells 1957 (Ll 20): 56, 58 & 1958 (M 50): 415. — *Sebacina* L. Olive 1954. — L. Olive 1954 (BTC 81): 334 (*Sebacina*).

Sebacina farinacea D. P. Rog. 1947 (PS 1): 97 f. 1 (Hawaii); fide Wells 1957 (Ll 20): 56, 58.

deminutum (Bourd.) Luck 1963. — *Sebacina* Bourd. 1922 (France); *Bourdolia* Bourd. & G. 1928. — Bourd. & G. 1928: 50 f. 28 (*Bourdolia*); D. P. Rog. 1933 (SIa 15^a): 13 tpl. 1 fs. 13-16; 1935 (SIa 17): 41; Whelden 1935 (M 27): 503 f. 1; McGuire 1941 (Ll 4): 39 fs. 95-99 (*Sebacina*); Luck 1963 (CJB 41): 1041 fs. 30-36 (*Basidiodendron*); Oberw. 1963 (Bba 36): 45 f. 1 (*Bourdolia*).

Corticium involucrum Burt 1926 (AMo 13): 271 (U.S.A., Vermont); fide D. P. Rog. 1935 (SIa 17): 41, 43.

Bourdolia mucosa Bourd. & G. 1928: 51 (France); fide Luck 1963 (CJB 41): 1041.

eyrei (Wakef.) Luck 1963. — *Sebacina* Wakef. 1915 (England); *Gloeocystidium* Sacc. & al. apud Trott. 1925; *Bourdolia* Bourd. & G. 1928. — Wakef. 1915 (TBS 5):

[Basidiodendron]

126 (*Sebacina*); Bourd. & G. 1928: 50 (*Bourdotia*); D. P. Rog. 1933 (SIa 15³): 13 *tpl.* 1 *fs.* 7–9; McGuire 1941 (Ll 4): 40 *fs.* 100–105; L. Olive 1958 (BTC 85): 24; M. P. Christ. 1959 (DbA 19): 25 *f.* 16 (*Sebacina*); Wells 1960 (M 51): 555 *f.* 7 (*Bourdotia*); Luck 1963 (CJB 41): 1034 *fs.* 1–9 (*Basidiodendron*); Oberw. 1963 (Bba 36): 45 *f.* 3 (*Bourdotia*).

Gloeocystidium croceotingers Wakef. apud Bres. 1920 (Am 18): 48 (England); fide Bourd. & G. 1928: 50.

? *Basidiodendron luteogriseum* J. Rick 1939 (Bro 7): 74 (Brazil); cf. Luck 1963 (CJB 41): 1032.

grandinioides (Bourd. & G.) Luck 1963. — *Bourdotia* Bourd. & G. 1928 (France); *Sebacina* D. P. Rog. 1935. — Bourd. & G. 1928: 51 *f.* 29 (*Bourdotia*); D. P. Rog. 1935 (SIa 17): 40 *tpl.* 3 *f.* 18; McGuire 1941 (Ll 4): 42 *fs.* 109–112 (*Sebacina*); Wells 1960 (M 51): 558 *f.* 8 (*Bourdotia*); Luck 1963 (CJB 41): 1039 *fs.* 25–29 (*Basidiodendron*).

rimulentum (Bourd. & G.) Luck 1963. — *Bourdotia* Bourd. & G. 1928 (France). — Luck 1963 (CJB 41): 1037 *fs.* 16–24.

Bourdotia poeltii Oberw. 1963 (Germany). — Oberw. 1963 (Bba 36): 45 *f.* 4.

BOURDOTIA (Bres.) Trott.

1925 [1958 (Ta 7): 173]. — *Sebacina* subgen. *Bourdotia* Bres. 1908. — Monotype: *Sebacina galzinii* Bres.

SPECIAL LITERATURE.—Wells, 1960.

galzinii (Bres.) Trott. 1925. — *Sebacina* Bres. 1908 (France); *Bourdotia* Bres. & Torr. apud Torrend 1913 (generic name n.v.p.), Trott. 1925; *Bourdotia pululahuana* subsp. *B. galzinii* Bourd. & G. 1928; *Exidiopsis* Killerm. 1928. — A. Pears. 1928 (TBS 13): 72 *f.* 4 (*Sebacina*); Bourd. & G. 1928: 48 *f.* 25 (*Bourdotia pululahuana* subsp. ~); McGuire 1941 (Ll 4): 33 *fs.* 80–82 (*Sebacina*); Malenç. 1954 (BmF 70): 124 *f.* 1F; Wells 1960 (M 51): 546 *f.* 1; Oberw. 1963 (Bba 36): 43 *f.* 11 (*Bourdotia*).

Bourdotia caesia Bres. & Torr. ex Trott. 1925 (Portugal); fide Wells 1960 (M 51): 546. — *Bourdotia* Bres. & Torr. apud Torrend 1913 (generic name n.v.p.); *Bourdotia pululahuana* subsp. *B. caesia* Bourd. & G. 1928; *Sebacina* Killerm. 1928, not ~ (Pers. per Fr.) Tul. 1871, not ~ Pat. 1889. — Bourd. & G. 1928: 48 (*Bourdotia pululahuana* subsp. ~); Donk 1931 (MmV 18–20): 106 (*Bourdotia*).

M.—*Tremella pululahuana* Pat. apud Pat. & Lag. sensu Bourd. & G. 1928: 48 (*Bourdotia*), as to European subspecies.

CRATEROCOLLA Bref. (24)

1888 [1958 (Ta 7): 176]. — Monotype: *Tremella cerasi* [Schum. sensu] Tul.

M.—*Ombrophila* Fr. sensu Quél. 1883 [1958 (Ta 7): 237], in part, not ~ Quél. 1892 (26).

[Craterocolla]

Ditangium P. Karst. 1867 (nom. anam.) [1962 (Ta 11): 83] (24). — Monotype: *Ditangium insigne* P. Karst.

Poroidea Göttinger ex Wint. 1884 (nom. anam.) [1962 (Ta 11): 95] (24). — Monotype: *Poroidea pithyophila* Göttinger ex Wint.

cerasi (Tul.) Bref. 1888 (25). — *Tremella* Tul. 1871 (France), excl. of basionym (viz. *Tremella cerasi* Schum. 1803, d.n., cited by error?); *Ditangium* Cost. & Duf. 1891; *Ombrophila* Lapl. 1894; *Exidia* Rick. 1918. — Tul. 1871 (JLS 13): 39; 1872 (ASn V 15): 229 pl. 11 (*Tremella*); Bref. 1888 U. 7: 99 pl. 6 fs. 9–21 (*Craterocolla*); Neuha. 1935 (PM 2a): 3 Ft. 1 fs. 1–7, St. 1 f. 6D, St. 2 fs. 1, 2, 4; 1936 (ABS 28¹): 4; Schiefferd. 1942 (ZP 21): pl. 3 (2) figs. & 1942 (ZP 21): 10 (*Ditangium*).

Ditangium insigne P. Karst. 1867 F.F.: No. 656 (Finland) (nom. anam.) (24, 27); fide Neuha. 1935 (PM 2a): 5 (forma). — Jo. Erikss. 1958 (Sbu 16¹): 41, including perfect state; Donk 1962 (Ta 11): 83, nomenclature.

Dacrymyces conglobatus Peck 1880 (RNS 32): 37 pl. 1 fs. 1–4 (U.S.A., New York) (nom. anam.); fide Peck 1887 (BNS 1²): 27, “apparently” *Ombrophila rubella* sensu Quél., Pat.; fide Neuha. 1935 (PM 2a): 4, 5 & L. Kenn. 1958 (M 50): 913.

Poroidea pithyophila Göttinger ex Wint. 1882 (RKF 1¹): 275 fs. 1–4 on p. 271 (“*pityophila*”) (Austria) (nom. anam.). — *Poroidea* Göttinger apud Saut. 1874 (nom. num.) (n.v.).

M.—*Ombrophila violacea* Fr. sensu Quél. 1873 (MMb II 5): 412 (26).

M.—*Helvella lilacina* Wulf. sensu Quél. 1873 (MMb II 5): 413 pl. 5 f. 12 (*Ombrophila*) (26); fide Neuha. 1935 (PM 2a): 4.

M.—*Peziza rubella* Pers. sensu Quél. 1883 (Crf 11): 402 pl. 11 f. 17 (*Ombrophila*) (26); fide Neuha. 1935 (PM 2a): 6. — Pat. 1883 T.a. 1: 68 f. 157, poor & only imperfect state (*Ombrophila*); Peck 1888 (BNS 1²): pl. 1 fs. 1–4, cf. pp. 27–28 (*Ombrophila*); Bourd. & G. 1928: 27 (*Ditangium*).

EICHLERIELLA Bres. (28)

1903 [1958 (Ta 7): 194; 1963 (Ta 12): 166]. — Lectotype: *Eichleriella incarnata* Bres.

SPECIAL LITERATURE.—Wells, 1962.

alliciens (B. & C.) Burt 1915 (28). — *Stereum* B. & C. 1876 (Brazil); *Exidiopsis* Wells 1962. — Burt 1915 (AMo 2): 746 pl. 27 f. 10 (*Eichleriella*); Wells 1962 (M 53): 354 f. 13 (*Exidiopsis*).

Eichleriella incarnata Bres. 1903 (Poland); fide Wells 1962 (M 53): 354, 356. — *Hirneolina* Bres. apud Sacc. & D. Sacc. 1905. — Bres. 1903 (Am 1): 116 pl. 3 f. 1; 1932 (BIm 23): pl. 1118 f. 1.

Hirneolina crocata Pat. 1924 (BmF 40): 31 (Tonkin = North Viet-Nam); fide Wells 1962 (M 53): 354, 355.

[*Eichleriella*]

Eichleriella mexicana Burt 1926 (AMo 13): 334 (Mexico); fide Wells 1962 (M 53): 354, 355.

Hirneolina ubatubensis Viégas 1945 (Bra 5): 242 *tpl.* 6 (Brazil); fide Wells 1962 (M 53): 354, 355.

[*Sebacina calcea* (Pers. per St-Am.) Bres. (28), see *Sebacina*.]

deglubens (B. & Br.) Lloyd 1913 (not accepted: n.v.p.), D. Reid 1957 (incomplete ref.: n.v.p.) (29). — *Radulum* B. & Br. 1875. — D. Reid 1957 (KB 12): 131, in obs.

Radulum kmetii Bres. 1897 (Hungary, now Czechoslovakia). — *Eichleriella* Bres. apud Bourd. & G. 1909; *Hirneolina* Sacc. & Trott. 1912. — Bres. 1897 (AAR III 3): 102; Lloyd 1915 (LMW 5, Rad.): 10 *f.* 980 (*Radulum*); Bourd. & G. 1909 (BmF 25): 30 (*Eichleriella*).

M.—*Radulum spinulosum* B. & C. apud Berk. sensu Burt 1915 (AMo 2): 747 *pl.* 27 *f.* 11 (*Eichleriella*), as to European specimens only; fide D. Reid 1957 (KB 12): 131. — Bourd. & G. 1928: 47 *f.* 24; Malenç. 1952 (BmF 68): 302 *fs.* 1C, D; M. P. Christ. 1959 (DbA 19): 33 *f.* 25 (*Eichleriella*).

leucophaea Bres. 1903 (Poland). — *Hirneolina* Bres. apud Sacc. & D. Sacc. 1905; *Exidiopsis* Wells 1962. — Bres. 1903 (Am 1): 116 *pl.* 3 *f.* 2; Bourd. & G. 1928: 47; Bres. 1932 (BIm 23): *pl.* 1118 *f.* 2 (*Eichleriella*); Wells 1962 (M 53): 352 *f.* 12 (*Exidiopsis*).

Eichleriella schrenkii Burt 1915 (U.S.A., Texas); fide Wells 1962 (M 53): 353, 354. — *Hirneolina* Sacc. & Trott. apud Trott. 1925. — Burt 1915 (AMo 2): 744 *pl.* 27 *f.* 8.

EXIDIA Fr. (30)

1822 [1958 (Ta 7): 195; 1963 (Ta 12): 166]. — Lectotype: *Exidia glandulosa* (Bull. per St-Am.) Fr.

Spicularia Chev. 1826, not ~ Pers. 1822 (Moniliales) [1958 (Ta 7): 243]. — Lectotype: *Exidia glandulosa* (Bull. per St-Am.) Fr.

Ulocolla Bref. 1888 [1958 (Ta 7): 249]. — Lectotype: *Exidia saccharina* Fr.

Tremellochaete Raitv. 1964 (EAT 13¹): 29. — Holotype: *Exidia japonica* Lloyd.

M.—*Auricularia* Bull. sensu Wahlenb. 1826: 993, in part [1958 (Ta 7): 171].

SPECIAL LITERATURE.—Neuhoff, 1926; Silbernagel, 1937, 1942; Whelden, 1935b.

albida (Huds. per Hook.) Bref. 1888, P. Karst. 1889 (31, 32). — *Tremella* Huds. 1778 (England) (d.n.) per Hook. 1821: Fr. 1822, misapplied; *Gyraria* S. F. Gray 1821. — Sm. 1810 (EB 30): *pl.* 2117; Berk. 1836: 216 (*Tremella*); Bref. 1888 U. 7: 94 *pl.* 5 *f.* 14; Neuh. 1935 (PM 2a): 24 *Fl.* 4 *fs.* 1–12; 1936 (ABS 28¹): 8, 18 (*Exidia*). — Sensu Fr. → *Exidia cartilaginea*; sensu Bon. → *Myxarium hyalinum*; sensu Berk. 1873 = *Ductifera pululahuana* (Pat.) Donk (extra-European); sensu Bourd. & G. 1909 → *Tremella candida*.

? *Tremella glauca* Pers. 1794 (NMB 1): 111 / 1797 T.: 31 (Germany) (d.n.) (32). — Schum. 1803: 438.

[Exidia]

Tremella thurettiana Lév. 1848 (France); fide Bres. 1908 (Am 6): 45 & Neuha. 1935 (PM 2a): 24, 26. — *Exidia* Fr. 1874. — A. Pears. 1921 (TBS 7): 55; Bourd. & G. 1928: 32; Donk 1931 (MmV 18-20): 113; Pilát 1953 (SnP 13): 98 fs. 98-102; Malenç. 1954 (BmF 70): 118 f. 1B; Reid & Austw. 1963 (GN 18): 330 (*Exidia*).

Tremella viscosa Fr. 1874: 691 (Great Britain) (33); fide Neuha. 1935 (PM 2a): 24, but cf. Reid & Austw. 1963 (GN 18): 330.

? *Exidia populina* (P. Karst.) Oud. 1920. — *Exidia albida* var. P. Karst. 1891 (Mfe 18): 73 (Finland).

M.—*Corticium viscosum* Pers. sensu B. & Br. 1854 (*Tremella*) (33); fide Neuha. 1935 (PM 2a): 24 = *Exidia albida*, but cf. Reid & Austw. 1963 (GN 18): 330. — B. & Br. 1854 (AM II 13): 406 pl. 15 f. 4; Boud. 1904-11: 93 pl. 180 (*Tremella*); Rea 1922: 735 (*Exidia*). — Sensus Schum. = *Thelephora viscosa* Pers. 1822 (nomen dubium), not ~ (Pers.) per Fr. 1821 (33).

badio-umbrina (Bres.) Killerm. 1928, Neuha. 1936. — *Ulocolla* Bres. 1903 (Poland). — Neuha. 1936 (ABS 28¹): 7, 14; 1936 (PM 2a): 47 Ft. 7 fs. 4, 5 (*Exidia*).

brunneola P. Karst. 1889 (Bfi 48): 450 (Finland).

cartilaginea Lund. & Neuha. apud Neuha. 1935 (Germany) (31). — Neuha. 1935 (PM 2a): 19 Ft. 3 fs. 1-13, St. 3 fs. 1, 2; 1936 (ABS 28¹): 15 pl. 3; Raitv. 1963 (TÜT 136): 207 f. 1: 4, fs. 3, 6.

M.—*Tremella albida* Huds. sensu Fr. 1822: 215, as to description (31). — P. Karst. 1876 (Bfi 25): 347.

cinnamomescens Raitv. 1963 (U.S.S.R., Komi). — Raitv. 1963 (TÜT 136): 208 f. 1: 1, f. 2.

Heterochaete europaea Höhn. 1903 (Am 1): 393 (Yugoslavia). — Bodm. 1952 (Ll 15): 230. — Cf. Neuha. 1936 (PM 2a): 22, 25, a possible synonym of either *Exidia villosa* or *E. albida*.

fulva Bres. & Torr. apud Torrend 1913 (Bro 11): 89 (Portugal).

glandulosa (Bull. per St-Am.) Fr. 1822 (34). — *Tremella* Bull. 1788 (France) (d.n.) per St-Am. 1821; *Exidia* Fr. 1822, in part; *Auricularia* Wahlenb. 1826; *Spicularia* Chev. 1826. — Sensus originario, Bull. 1788: pl. 420 f. 1 & 1791 H.: 220 (*Tremella*) [fide Neuha. 1936 (ABS 28¹): 10 & 1936 (PM 2a): 37, 41 = *Exidia truncata*]; Gillet pl. 515; Pat. 1900: 23 f. 15 (*Exidia*). — Sensus Fr. 1822, in part → *Exidia plana*.

Tremella arborea Huds. 1778 (England) (d.n.) per Hook. 1821 (37). — *Exidia* Sacc. 1916. — Sm. 1812 (EB 34): pl. 2448.

Tremella atra O. F. Müll. 1782 (Denmark) (d.n.) (38); fide Neuha. 1936 (PM 2a): 41 (as to figure 2). — *Tremella* O. F. Müll. per Spreng. 1827, not ~ Schrank 1789 (d.n.); = *Tremella rubra* Gmel. 1791 (d.n.; presumably an error). — O. F. Müll. 1782 (Fd 5 / F. 15): 5 pl. 884, in part (as to figure 2 only).

Tremella spiculosa Pers. 1799 (Germany) (d.n.); fide Pers. 1799 O. 2: 99 (citing *T. glandulosa* as syn.); fide Neuha. 1936 (PM 2a): 41 ("im wesentlichen") = *Exidia truncata*. — *Gyraria* (Pers.) per S. F. Gray 1821; *Tremella* Schleich. 1821,

[*Exidia*]

Pers. 1822; *Exidia* Sommerf. 1826. — L. Tul. 1853 (ASn III 19): 200 *pl.* 11 *fs.* 2–8, *pl.* 12 *f.* 1 (*Exidia*). — Sensu Sommerf. = *Exidia plana*.

Tremella flaccida Sm. 1812 (England) (d.n.) per Steud. 1824; fide Neuhaus. 1936 (PM 2a): 41 = *Exidia truncata*. — Sm. 1813 (EB 35): *pl.* 2452 (*Tremella*).

Tremella papillata Kunze 1817 (Germany) (d.n.) per Fic. & Sch. 1823; fide Neuhaus. 1936 (PM 2a): 41 = *Exidia truncata*. — *Auricularia* Fuck. 1875; *Exidia* Wint. 1882. — Kunze 1817 (MH 1): 86 (*Tremella*).

Tremella impressa Pers. 1822: 102 (Germany); fide Neuhaus. 1936 (PM 2a): 41. 43 = *Exidia truncata*. — *Exidia* Fr. 1822. — Sensu Bourd. & G. → *Exidia recisa*.

Exidia truncata Fr. 1822 (Sweden) (34). — *Tremella* Spreng. 1827; *Auricularia* Fuck. 1870. — Fr. 1822: 224; P. Karst. 1876 (BFI 25): 348; Bref. 1888 U. 7: 92 *pl.* 5 *f.* 18; Bourd. & G. 1928: 30; Bres. 1932 (BIm 23): *pl.* 1111 *f.* 1; Neuhaus. 1936 (ABS 28¹): 6, 10; 1936 (PM 2a): 40 *Ft.* 6 *fs.* 1–12, *St.* 4 *fs.* 2, 3; Schieferd. 1942 (Her 3): 293 *pl.* 2 *f.* 1 [= 2]; Pilát 1957 (SnP 13): 191 *pl.* 31, *pl.* 32 *f.* a, *pl.* 33 *f.* a (*Exidia*).

Exidia strigosa (P. Karst.) P. Karst. 1889 (BFI 48): 451; fide Neuhaus. 1936 (PM 2a): 41 = *Exidia truncata*. — *Exidia glandulosa* subsp. *E. strigosa* P. Karst. 1876 (Finland).

Exidia grambergii Neuhaus. 1926 (ZP 5): 187, 188 (former East Prussia, now U.S.S.R., Russia); fide Neuhaus. 1936 (ABS 28¹): 6 = *Exidia truncata* (forma). — Rea 1932 (TBS 17): 48 (*Exidia*); Neuhaus. 1936 (ABS 28¹): 6; 1936 (PM 2a): 43 *Ft.* 6 *f.* 12 (*Exidia truncata* f.).

M.—*Tremella auricula-judae* Bull. sensu Fr. 1822: 221 (*Exidia*), at least in part; fide Donk 1941 (BBu III 17): 161 & 1950 (Ta 7): 171 = *Exidia* sp. — Cf. *Exidia grambergii* Neuhaus. which was later on considered a synonym of *E. truncata* (= *E. glandulosa*) by its author.

M.—*Tremella recisa* Ditm. sensu Bref. 1888 U. 7: 92 *pl.* 5 *f.* 19 (*Exidia*); fide Neuhaus. 1935–6 (PM 2a): 8, 41 = *Exidia truncata*.

pithya (A. & S.) per Fr. 1822. — *Tremella auricula-judae* var. A. & S. 1805 (“*pitya*”) (Germany) (d.n.). — Fr. 1822: 226; Neuhaus. 1924 (BAM 8): 269 *tpl.* 4 *fs.* 1–11, cytology; 1936 (ABS 28¹): 5, 14; 1936 (PM 2a): 38 *Ft.* 6 *fs.* 13–17, *St.* 3 *fs.* 3, 4 (*Exidia*).

Exidia friesiana P. Karst. in Thüm. 1878 M.u.: No. 1111 (with description); fide Neuhaus. 1936 (ABS 28¹): 6 & 1936 (PM 2a): 38, 39.

Tremella olivaceonigra Britz. 1895 (BCb 62) : 313 [*pl.* 760 *f.* 28], wrong spores (Germany); fide Neuhaus. 1936 (PM 2a): 38.

M.—*Tremella plana* Wigg. sensu Schleich. apud Secr. 1833 (35); fide Neuhaus. 1936 (PM 2a): 38 & Donk. — Secr. 1833 M. 3: 284.

plana (Wigg. per Schleich.) Donk 1966 (35). — *Tremella* Wigg. 1780 (Germany) (d.n.) per Schleich. 1821. — Wigg. 1780: 95 (*Tremella*). — Sensu Secr. → *Exidia pithya*.

Tremella nigricans With. 1776: 732 (d.n.) (37), not ~ (Bull. 1789 per Mérat) G. F. Re 1827, not ~ Poir. 1808 (generic name n.v.p.), not ~ (Fr.) Sacc.

[*Exidia*]

1888; = *Tremella picea* Latourr. 1785 (d.n.) (typonym), not ~ Mass. 1901. — [*Tremella arborea nigricans*, minus *pinguis* & *fugax* Dill. 1741: 54 pl. 10 f. 15 (England)].

? *Tremella atra* Schrank 1789: 562 (Germany) (d.n.), not ~ O. F. Müll. 1782 (d.n.).

Lichen fugax Wulf. 1789 (CoJ 3): 141 pl. 12 f. 2 (Austria) (d.n.) (37). — *Parmelia* Ach. 1803 (d.n.); *Collema* Ach. 1810 (d.n.).

Tremella umbrina Schum. 1803: 438 (Denmark) (d.n.); fide Neuh. 1936 (PM 2a): 34 = *Exidia glandulosa* Neuh.

Exidia applanata Schw. 1832: 185 (U.S.A., Pennsylvania) (36).

? *Exidia spiculata* Schw. 1832 (U.S.A., Pennsylvania) (36); fide Neuh. 1936 (PM 2a): 33 = *Exidia glandulosa* Neuh. — Burt 1921 (AMo 8): 372; L. Olive 1947 (M 39): 96 f. 5.

Exidia plicata Kl. 1839: pl. 475 (Germany); fide Neuh. 1935 (PM 2a): 33 = *Exidia glandulosa* Neuh. — *Tremella* Bail 1858. — Bail 1858: 17, 94 pl. 22 fig. (*Tremella*); Bref. 1888 U. 7: 91 pl. 5 f. 5 (*Exidia*).

Tremella nigra Bon. 1851: 151 (Germany); fide Neuh. 1936 (PM 2a): 33 = *Exidia glandulosa* Neuh.

Tremella cinerea Bon. 1851 (Germany); fide Neuh. 1936 (PM 2a): 33 = *Exidia glandulosa* Neuh. — Bon. 1864 (AbH 8): 119.

? *Tremella myricae* B. & Cooke apud Cooke 1878 (G 6): 133 (U.S.A., Florida); fide Neuh. 1936 (PM 2a): 33 = *Exidia glandulosa* Neuh.

Exidia tenax Cooke 1879 (G 8): 57 (New Zealand); fide McNabb 1964 (NZB 2): 410 = *Exidia glandulosa* [sensu McNabb].

Exidia neglecta J. Schroet. 1888: 393 (Prussian Silesia, now Poland); fide Neuh. 1936 (ABS 28¹): 6 & 1936 (PM 2a): 36 = *Exidia glandulosa* Neuh. (forma).

? *Exidia epapillata* Bref. 1888 U. 7: 87 pl. 5 f. 1 (Germany); fide Neuh. 1936 (ABS 28¹): 11 & 1936 (PM 2a): 33 = *Exidia glandulosa* Neuh.

Tremella faginea Britz. 1895 (BCb 62): 313 [pl. 760 f. 29] (Germany); fide Neuh. 1936 (MP 2a): 33, 34 = *Exidia glandulosa* Neuh.

Exidia glandulosa Neuh. 1936 (Sweden) (n.v.p.) (34). — Neuh. 1936 (ABS 28¹): 6, 11; 1936 (PM 2a): 32 Ft. 5 fs. 3-16, St. 4 fs. 1, 4.

M.—*Tremella arborea* Huds. sensu Hoffm. 1787 V.c. 1: 37 pl. 8 f. 1; fide Neuh. 1936 (PM 2a): 34 = *Exidia glandulosa* Neuh.

M.—*Tremella atrovirens* Bull. sensu Schum. 1803: 438; fide Neuh. 1936 (PM 2a): 34 = *Exidia glandulosa* Neuh.

M.—*Tremella glandulosa* Bull. per St-Am. sensu Fr. 1822: 224 (*Exidia*), in part. — Bref. 1888 U. 7: 88 pl. 5 fs. 2-4; Bres. 1932 (BIm 23): pl. 1112; Schiefferd. 1942 (Her 3): 293 pl. 1 f. 1 (*Exidia*).

M.—*Tremella intumescens* Sm. sensu Bon. 1864 (AbH 8): 120.

M.—*Exidia repanda* Fr. sensu Bref.; fide Neuh. 1935 (PM 2a): 16, 18, 33 = *Exidia glandulosa* Neuh. — Bref. 1888 U. 7: 91 pl. 5 fs. 6-11.

[Exidia]

recisa (Ditm. per S. F. Gray) Fr. 1822 (39). — *Tremella* Ditm. 1813 (d.n.) per S. F. Gray 1821; = *Peziza gelatinosa* Bull. 1789 (France) (d.n.) per Mérat 1821; *Exidia* Duby 1830, Wettst. 1885, not ~ (Scop. per Fr.) Crouan 1867; = *Tremella fungiformis* Roth 1802 (d.n.). — Bull. 1789: *pl.* 460 *f.* 2; 1791 H.: 239; Pers. 1801: 633 (*Peziza gelatinosa*); Roth 1802: 315 (*Tremella fungiformis*); Ditm. 1813 (StP 1): 27 *pl.* 13 (*Tremella recisa*); Fr. 1822: 223; L. Tul. 1853 (ASn III 19): 200 *pl.* 12 *f.* 2; Bourd. & G. 1928: 29; Neuh. 1935 (PM 2a): 7 *Ft.* 1 *fs.* 8–15, *St.* 2 *f.* 5; 1936 (ABS 28¹): 7, 9 *pl.* 2 *f.* A; Pilát 1957 (SnP 13): 193 *pl.* 33 *f.* b, *pl.* 34 *f.* a (*Exidia recisa*). — Sensus Bref. → *Exidia glandulosa*.

Tremella sagarum Retz. 1769 (SVH 30): 249 (Sweden) (d.n.); fide Fr. 1822: 223. — *Auricularia* (Retz.) per Wahlenb. 1826; *Exidia* Sacc. 1916. — Sensus Wigg. 1780: 95 = *Exidia glandulosa* [sensu stricto], fide Fr. 1832 Ind.: 193.

Tremella boletiformis Sm. 1807 (England) (d.n.) per Purt. 1821; fide Fr. 1822: 223 & Neuh. 1935 (PM 2a): 8. — Sm. 1807 (EB 25): *pl.* 1819.

Tremella salicum Pers. 1822: 102 (Germany); fide Fr. 1822: 223 & Neuh. 1935 (PM 2a): 8. — Fic. & Sch. 1823: 315.

Exidia straminea Berk. 1851 (HJB 3): 19 *pl.* 1 *f.* 4 (France); fide Neuh. 1935 (PM 2a): 7, 10.

M.—*Tremella impressa* Pers. sensu Bourd. & G. 1928: 30 (*Exidia*); fide Neuh. 1935 (PM 2a): 7 & 1936 (ABS 28¹): 9.

repanda Fr. 1822 (Sweden). — *Tremella* Spreng. 1827; *Ulocolla* Bres. 1932. — Fr. 1822: 225; P. Karst. 1876 (BFi 25): 350; Bourd. & G. 1928: 31; Neuh. 1935 (PM 2a): 16 *Ft.* 2 *fs.* 12–22, *St.* 2 *fs.* 3, 8; 1936 (ABS 28¹): 7, 15; G. W. Mart. 1952 (SIa 19⁸): 81; Pilát 1957 (SnP 13): 194 *pl.* 35, *pl.* 36 *f.* a (*Exidia*). — Sensus Bref. → *Exidia plana*.

saccharina (A. & S.) per Fr. 1822. — *Tremella spiculosa* var. A. & S. 1805 (Germany) (d.n.); *Tremella* Bon. 1851, misapplied; *Ulocolla* Bref. 1888. — Fr. 1822: 225 (*Exidia*); Bref. 1888 U. 7: 95 *pl.* 6 *fs.* 1, 3–8 (*Ulocolla*); Bourd. & G. 1928: 32; Neuh. 1935 (PM 2a): 13 *Ft.* 2 *fs.* 1–11, *St.* 2 *f.* 7; 1936 (ABS 28¹): 7, 8; Bjørnek. 1944 (Fr 3): 13 *fig.*; G. W. Mart. 1952 (SIa 19⁸): 81 (*Exidia*). — Sensus Bon. → *Dacrymyces saccharinus*.

M.—*Tremella foliacea* Pers. sensu Bref. 1878 U. 3: 183 *fs.* 5, 6; fide Bres. 1900 F.t. 2: 98 & Neuh. 1935 (PM 2a): 13, 15 = *Ulocolla/Exidia saccharina*. — Bref. 1888 U. 7: 98 *pl.* 6 *f.* 2 (*Ulocolla*).

umbrinella Bres. 1900 (Italy) (40). — Bres. 1900 F.t. 2: 98 *pl.* 209 *f.* 2; Bourd. & G. 1928: 30; Bres. 1932 (BIm 23): *pl.* 1110, Neuh. 1935 (PM 2a): 10 *Ft.* 1 *fs.* 16–20, *St.* 2 *f.* 6; 1936 (ABS 28¹): 7; Pilát 1957 (SnP 13): 192 *pl.* 28 *f.* b.

villosa Neuh. 1935 (Germany). — Neuh. 1935 (PM 2a): 22 *Ft.* 3 *fs.* 14–21; 1936 (ABS 28¹): 8, 17; Schieferd. 1942 (ZP 21): *pl.* 3 *fig.* & 1942 (ZP 21): 10; 1942 (Her 3): 294. — Cf. *Heterochaete europaea* Höhn. (under *Exidia*).

HETEROCHAETE Pat. apud Pat. & Lag. (41)

1892, not *Heterochaeta* DC. 1836 (Compositae) [1958 (Ta 7): 201]. — Lectotype: *Heterochaeta andina* Pat. & Lag.

? *Hirneolina* (Pat.) Bres. apud Sacc. & D. Sacc. 1905 [1958 (Ta 7): 203]. — *Sebacina* sect. *Hirneolina* Pat. 1900. — Monotype: *Sebacina hirneoloides* Pat.

SPECIAL LITERATURE.—Bodman, 1952.

macrochaete Bres. & Torr. apud Torrend (Portugal) (42). — Torrend 1913 (Bro 11): 86 f. 7; Bodm. 1952 (Ll 15): 219.

Cf. *Sebacina strigosa* Bourd. & G.

HETEROCHAETELLA (Bourd.) Bourd. & G. (44)

1928 [1958 (Ta 7): 202]. — *Sebacina* subgen. *Heterochaetella* Bourd. 1920. — Lectotype: *Heterochaete dubia* Bourd. & G.

SPECIAL LITERATURE.—Luck-Allen, 1960.

brachyspora Luck 1960 (France). — Luck 1960 (CJB 38): 566 fs. 37–47; Oberw. 1963 (Bba 36): 48 f. 8.

dubia (Bourd. & G.) Bourd. & G. 1928. — *Heterochaete* Bourd. & G. 1909 (France); *Sebacina* Bourd. 1922. — Bourd. & G. 1928: 51 f. 30 (*Heterochaetella*); D. P. Rog. 1933 (SIa 15³): 11 *tpl.* 1 fs. 1–3; McGuire 1941 (Ll 4): 31 fs. 73, 74; D. P. Rog. 1947 (PS 1): 96; L. Olive 1958 (BTC 85): 90; M. P. Christ. 1959 (DbA 19): 23 f. 12 (*Sebacina*); Luck 1960 (CJB 38): 564 fs. 23–36; Oberw. 1963 (Bba 36): 46 f. 8 (*Heterochaetella*).

Sebacina psilochaete (Bourd. & G.) L. Olive 1958. — *Heterochaetella dubia* var. Bourd. & G. 1928 (France). — Bourd. & G. 1928: 52 (*Heterochaetella dubia* var.). — Fide Luck 1960 (CJB 38): 569, a doubtful species of *Heterochaetella*.

MYXARIUM Wallr. (43, 44)

1833 [1958 (Ta 7): 207]. — Monotype: *Myxarium nucleatum* Wallr.

SPECIAL LITERATURE.—Wells, 1964a, 1964b.

hyalinum (Pers.) Donk 1966 (45, 46). — *Tremella* Pers. 1822: 105 (Germany); *Dacrymyces* Quél. 1888, not ~ Lib. 1837. — Sensu Quél. apud Bourd. & G.

Dacrymyces caesius; sensu Lloyd → ? *Dacrymyces tortus*.

Myxarium nucleatum Wallr. 1833: 260 (Germany); not *Tremella nucleata* Schw. 1822 = *Exidia nucleata* (Schw.) Burt.; fide Neuh. 1936 (PM 2a): 29 = *Exidia gemmata*.

Tremella gemmata Lév. 1842 [cf. Neuh. 1936 (PM 2a): 30] (France) (45). — *Naematelia* Fr. 1874; *Exidia* Bourd. & L. Maire 1920. — Bourd. & L. Maire 1920

[Myxarium]

(BmF 36): 69 (*Exidia*); Kühner 1926 (Bot 17): 23 fs. 4, 5 (*Tremella*); Neuh. 1936 (PM 2a): 29 Ft. 4 fs. 13–25, Ft. 5 fs. 1, 2; 1936 (ABS 28¹): 8, 18; Schieferd. 1942 (ZP 21): pl. 2 fig. & 1948 (ZP 21): 9; 1942 (Her 3): 293 pl. 1 f. 2 (*Exidia*).

Dacrymyces lilacinus Quél. 1888: 17 (“Quél. Ass. fr. 1884”, apparently erroneous reference) (France); fide Quél., l.c. = *Tremella violacea* Pers. sensu L. Tul. (cited as syn.).

Exidia corrugativa Bref. 1888 U. 7: 93 pl. 5 fs. 15–17 (45); fide Neuh. 1936 (PM 2a): 29, 31 = *Exidia gemmata*.

Tremella ilicis Boud. 1904–11 (France); fide Neuh. 1936 (PM 2a): 29, 31 = *Exidia gemmata*. — Boud. 1904–11: 92 pl. 179.

Exidia alboglobosa Lloyd 1925 (LMW 7): 1356 pl. 336 f. 3195 (France); fide Neuh. 1936 (PM 2a): 31 = *Exidia gemmata* (forma).

M.—*Tremella albida* Huds. per Hook. sensu Bon. 1851: 151 pl. 12 f. 246; fide Neuh. 1936 (PM 2a): 29 = *Exidia gemmata*.

M.—*Tremella violacea* Pers. sensu L. Tul. 1853 (69); fide Neuh. 1936 (PM 2a): 29, 31 & 1936 (ABS 28¹): 19 = *Exidia gemmata* (forma). — L. Tul. 1853 (ASn III 19): 198 pl. 12 fs. 3–12.

M.—*Tremella nucleata* Schw. sensu Berk. 1860: 290 (*Naematelia*), as to European material (46); fide Neuh. 1936 (PM 2a): 29, 31 = *Exidia gemmata*. — L. Tul. 1853 (ASn III 19): 204 (unnamed species compared with *Naematelia nucleata*); Rea 1922: 735; Bourd. & G. 1928: 33; Donk 1931 (MmV 18–20): 114 (*Exidia*).

M.—*Naematelia globulus* Corda sensu Lloyd 1922 (LMW 7): 1149 pl. 213 f. 2226; fide Neuh. 1936 (PM 2a): 29, 31 = *Exidia gemmata*.

PROTODONTIA Höhn. (44, 47)

1907 [1958 (Ta 7): 241]. — Monotype: *Protodontia uda* Höhn.

SPECIAL LITERATURE.—Martin, 1932, 1953; Whelden, 1937.

? **fascicularis** (A. & S. per Fr.) Pilát 1957 (incomplete ref.: n.v.p.) (48). — *Hydnum* A. & S. 1805 (d.n.) per Fr. 1821, not *H. fascicularia* B. & C. apud Berk. 1873 (also spelt “fasciculare”); *Mucronia* Fr. 1861; *Mucronella* Fr. 1874; *Hericium* Banker 1906; *Protohydnum* Bres. 1920. — A. & S. 1805: 269 pl. 10 f. 9 (*Hydnum*); Fr. 1874: 629 (*Mucronella*); sensu Bres. 1920 (Am 18): 63; 1932 (BIm 23): pl. 1117 (*Protohydnum*).

? **filicina** Parm. 1962 (Estonia) (49). — Parm. 1962 (BMs 15): 125 fs. 1, 2.

piceicola (Kühner ex Bourd.) G. W. Mart. 1952. — *Protohydnum* Kühner 1926 (as a var. of *P. lividum*: n.v.p.) ex Bourd. 1932 (France). — Kühner 1926 (Bot 17): 30 fs. 6, 7; Bourd. 1932 (BmF 48): 205; Neuh. 1936 (ABS 28¹): 26 pl. 5 (*Protohydnum*); G. W. Mart. 1952 (SIa 19³): 63; Pilát 1957 (SnP 13): 201 f. 10 (*Protodontia*).

subgelatinosa (P. Karst.) Pilát 1957. — *Hydnum* P. Karst. 1882 (Finland); *Proto-*

[Protodontia]

hydnum Lundell 1947. — Lundell 1947 (LNF 29–30): 21 No. 1433 (*Protohydnum*).

Protohydnum lividum Bres. 1903 (Poland): fide Lundell 1947 (LNF 29–30): 21

No. 1433. — Bourd. & G. 1928: 34; Bourd. 1932 (BmF 48): 205.

uda Höhn. 1907 (Austria). — Höhn. 1907 (SbW 116): 83; Wak. & Pears. 1920 (TBS 6): 69 fig. — Sensus G. W. Mart. 1932 (M 24): 508 fs. 1, 2; 1952 (SIa 19³): 63 f. 15; American material, perhaps a different sp. fide Donk apud G. W. Mart. 1953 (JWS 43): 18.

PSEUDOHYDNUM P. Karst.

1868 [1958 (Ta 7): 241]. — Monotype: *Hydnum gelatinosum* Scop. per Fr.

Hydnogloea Currey apud B. & Br. 1871 [1958 (Ta 7): 204]. — Monotype: *Hydnum gelatinosum* Scop. per Fr.

Tremellodon (Pers.) Fr. 1874 [1958 (Ta 7): 248; 1963 (Ta 12): 167]. — *Hydnum* sect. *Tremellodon* Pers. 1825. — Monotype: *Hydnum gelatinosum* Scop. per Fr.

SPECIAL LITERATURE.—Currey, 1861; Hagerup, 1944; Whelden, 1937.

gelatinosum (Scop. per Fr.) P. Karst. 1868. — *Hydnum* Scop. 1772 (Yugoslavia, Carniola) (d.n.) per Fr. 1821, not ~ Latourr. 1785 (d.n.); *Steccherinum* S. F. Gray 1821; *Exidia* Crouan 1867, not ~ (Bull. per Mérat) Duby 1830; *Hydnogloea* Currey ex Berk. 1873 (“*Hydnogloeum*”); *Tremellodon* Fr. 1874; ≡ *Hydnum spongiosum* D. Dietr. 1847 D.F. 8: 89 pl. 282. — Currey 1861 (JLS 5): 181 fig. (*Hydnum*); J. Schroet. 1888: 397; A. Möll. 1895 (BMS 8): 133 pl. 5 f. 34; Boud. 1904–11: 91 pl. 178; Coker 1920 (JMS 35): 152 pl. 43, pl. 59 f. 4; Bres. 1932 (BIm 23): pls. 1115, 1116 (*Tremellodon*); G. W. Mart. 1948 (Ll 11): 117; Pilát 1957 (SnP 13): 204 fs. 11, 12, pl. 38 f. b, pl. 37; Poelt & Jahn 1964: pl. 24 fig.; McNabb 1964 (NZB 2): 412 fs. 1l, m (*Pseudohydnum*).

Hydnum crystallinum O. F. Müll. 1777 (d.n.); fide Fr. 1821: 407. — *Tremellodon* (O. F. Müll.) per Qué. 1888 (“*cristallinum*”); [≡ *Echinus crystallinus gelatinosus* Haller 1768 (Switzerland)]; ≡ *Hydnum gelatinosum* Latourr. 1785 (d.n.) (typonym), not ~ Scop. 1772 (d.n.). — O. F. Müll. 1777 (Fd 4 / F. 12): 6 pl. 717 (*Hydnum*); Bourd. & G. 1928: 33 (*Tremellodon*).

Hydnum auriculatum Fr. 1838: 513 (Sweden); fide Neuh. 1936 (ABS 28¹): 26. — *Tremellodon* Fr. 1874.

Auricula totarae Lloyd 1920 (LMW 6): 935 pl. 150 fs. 1708, 1709 (generic name n.v.p. [cf. Donk 1957 (Ta 6): 21]) (New Zealand); fide McNabb 1964 (NZB 2): 412, 413.

SEBACINA Tul. (50)

1871 [1958 (Ta 7): 242]. — Lectotype: *Corticium incrustans* Pers.

Exidiopsis (Bref.) A. Möll. 1895 [1958 (Ta 7): 196] (50). — *Exidia* subgen. *Exidiopsis* Bref. 1888. — Monotype: *Exidiopsis effusa* Bref.

SPECIAL LITERATURE.—Ervin, 1957; McGuire, 1941; Oberwinkler, 1963, 1964; Rogers, 1936; Wells, 1959, 1962; Whelden, 1935c; Wittlake, 1938.

[*Sebacina*]

banatica Pil. & Lindtn. 1938 (Yugoslavia). — Pilát 1957 (SnP 13): 156 *pl.* 21 *f. a.*
caesia Pat. 1889 (France), not/an ~ (Pers. per Fr.) Tul. 1871, not ~ Killerm.
 1928; (51). — Pat. 1889 T.a. 2: 67 *f.* 681.

M.—*Corticium caesium* Pers. sensu Bourd. & G. 1928: 41 (*Sebacina laciniata*
 subsp. *S. caesia*) (51). — Cf. A. Pears. 1921 (TBS 7): 55.

caesia (Pers. per Fr.) Tul. sensu M. P. Christ. 1959 (51). — M. P. Christ. 1959
 (DbA 19): 27 *f.* 19.

calcea (Pers. per St-Am.) Bres. 1898 (28, 52). — *Thelephora* Pers. 1801 (d.n.) per
 St-Am. 1821, Pers. 1822: Fr. 1828, in part ("c. albido-fuscescens"); *Auricularia*
 Mérat 1821; *Corticium* Fr. 1838; *Exidiopsis* Wells 1962. — Bres. 1898 F.t. 2: 64
pl. 175; Wakef. 1915 (TBS 5): 126; Bourd. & G. 1928: 44; Bres. 1932 (BIm 23):
pl. 1124; Wittlake 1938 (SIa 17): 351 *tpls.* 20, 21; McGuire 1941 (Ll 4): 23 *fs.*
 5, 6, 46-49; Malenç. 1954 (BmF 70): 120 *f.* 1C (*Sebacina*); Wells 1962 (M 53):
 348 *f.* 11 (*Exidiopsis*); Oberw. 1963 (Bba 36): 49 *f.* 19 (*Sebacina*). — Sensu Bourd.
 & G. (as "[*Corticium*] *calceum* Fr.") = *Corticium suecicum* Litsch. = *Sistotremastrum*
suecicum Jo. Erikss.

Xerocarpus farinellus P. Karst. 1882 (BFi 37): 139 (Finland); fide Romell
 1895 (BoN): 72 = *Corticium abietis* ("vix dubie hujus loci"); & fide Bres. 1898
 F.t. 2: 64, Höhn. & L. 1906 (SbW 115): 1567, & Burt 1915 (AMo 2): 760. —
Corticium Sacc. 1888.

Sebacina letendreana Pat. 1885 (France); fide Bourd. & G. 1928: 45. —
Thelephora Sacc. 1888; *Heterochaete* J. Rick 1933. — Pat. 1885 (Rm 7): 152.

Corticium abietis (Fr.) Romell 1895; fide Bres. 1898 F.t. 2: 64 & Burt 1915
 (AMo 2): 760. — *Thelephora acerina* forma Fr. 1821 (Sweden). — Romell 1895
 (BoN): 72 (*Corticium*).

calospora (Bourd. & G.) Bourd. & G. 1928. — *Exidiopsis* Bourd. & G. 1924
 (France). — Bourd. & G. 1928: 46 *f.* 23; McGuire 1941 (Ll 4): 22 *fs.* 41-43;
 G. W. Mart. 1931 (SIa 13^b): 9 *tpl.* 1 *fs.* 2-6; Boid. 1957 (BTl 92): 279 *f.* 2
 (*Sebacina*); Wells 1962 (M 53): 328 *f.* 1 (*Exidiopsis*); Warc. & Talb. 1962 (TBS 45):
 498 *f.* 1 (*Sebacina*).

carneola Bres. 1926 (Str II 7): 64 (France). — Insufficiently described.

Hypochnus cinereus Bon. 1851: 159 *pl.* 12 *f.* 249 (Germany). — Insufficiently
 described. Cf. *Sebacina grisea*.

crozalsii Bourd. & G. 1928: 38 (France). — Delécluse 1953 (BmF 53): 135 *fs.* 1-4;
 Wells 1962 (M 53): 360. — Fide Wells, l.c. = *Sebacina podlachica*.

dimitica Oberw. 1963 (Germany). — Oberw. 1963 (Bba 36): 53 *f.* 22.

effusa (Bref. ex Sacc.) Pat. 1900 (53). — *Exidiopsis* Bref. 1888 (as a sp. of *Exidia*:
 n.v.p.) (Germany); *Thelephora* (Bref.) ex Sacc. 1888; *Exidiopsis* A. Möll. 1895. —
 Bref. 1888 U. 7: 94 *pl.* 5 *fs.* 20-22 (*Exidiopsis*); Maire 1902 (BmF 18, S.): 67 *pl.*
 1 *fs.* 5-15; M. P. Christ. 1959 (DbA 19): 32 *f.* 23; Oberw. 1963 (Bba 36): 52 *f.* 17
 (*Sebacina*).

Sebacina quercina (Vuill.) ex Maire 1902 (BmF 18, S.): 66; fide Bourd. & G.

[*Sebacina*]

1928: 44 = *Sebacina uvida* [sensu Bres.]. — *Exidiopsis* Vuill. 1890 (France) (generic name n.v.p.).

? *Sebacina peritricha* Bourd. & G. 1909 (France) (53). — *Exidiopsis* Sacc. & Trott. 1912. — Bourd. & G. 1928: 44 (*S. uvida* subsp. ~).

M.—*Thelephora uvida* Fr. sensu Bres. 1891 (*Sebacina*); fide Ludell 1947 (LNF 29-30): 20 No. 1432. — Bourd. & G. 1909 (BmF 25): 26; 1928: 44 (*Sebacina*).

epigaea (B. & Br.) Neuh. 1931. — *Tremella* B. & Br. 1848 (England); *Sebacina* Lloyd 1925 (n.v.p.). — B. & Br. 1848 (AM II 2): 266 pl. 9 f. 3 (*Tremella*); Bourd. & G. 1928: 39 f. 19 (*Sebacina laciniata* subsp. ~); Rea 1932 (TBS 17): 48; Whelden 1935 (M 27): 503 f. 3; McGuire 1941 (Ll 4): 16 fs. 3, 4, 15-21; L. Olive 1947 (M 39): 100 f. 7; Lundell 1954 (LNF 45-46): 20 No. 2242; Malenç. 1958 (BmF 73): 290 f. 1; M. P. Christ. 1959 (DbA 19): 26 f. 18; Oberw. 1963 (Bba 36): 53 f. 21 (*Sebacina*).

Sebacina ambigua Bres. 1903 (Poland); fide McGuire 1941 (Ll 4): 16, 29. — *Thelephora* Sacc. & D. Sacc. 1905. — Bres. 1903 (Am 1): 116 (*Sebacina*); Bourd. & G. 1928: 40 (*S. laciniata* subsp. ~).

Sebacina atrata Burt 1915 (AMo 2): 765 f. 7, pl. 27 f. 21 (U.S.A., Massachusetts); fide McGuire 1941 (Ll 4): 16, 17.

Sebacina cokeri Burt 1926 (U.S.A., North Carolina); fide McGuire 1941 (Ll 4): 16, 17. — Coker 1920 (JMS 35): 157 pl. 47, pl. 61 fs. 1-5 (*Sebacina* sp.).

fugacissima Bourd. & G. 1909 (France). — *Exidiopsis* Sacc. & Trott. 1912, Ervin 1957. — A. Pears. 1921 (TBS 7): 56; Bourd. & G. 1928: 42; McGuire 1941 (Ll 4): 30 fs. 54-57 (*Sebacina*); Wells 1962 (M 53): 337 f. 5 (*Exidiopsis*).

Exidiopsis glaira (Lloyd) Wells 1957. — *Tremella* Lloyd 1919 (Sweden). — Wells 1962 (M 53): 331 f. 3 (*Exidiopsis*).

Sebacina opalea Bourd. & G. 1924 (France); fide Wells 1962 (M 53): 331, 332. — Bourd. & G. 1928: 42 f. [21]; Neuh. 1936 (ABS 28¹): 28; McGuire 1941 (Ll 4): 20 fs. 26-34; M. P. Christ. 1959 (DbA 19): 28 f. 20.

gloeophora Oberw. 1964 (Germany). — Oberw. 1964 (NH 7): 495 pl. 33 fs. 8-13.

grisea (Pers.) Bres. 1908 (53). — *Thelephora* Pers. 1822 (Europe); *Exidiopsis* Bourd. & L. Maire 1920. — Sensu Bres. 1908 (Am 6): 45 (*Sebacina*); Bourd. & L. Maire 1920 (BmF 36): 71 (*Exidiopsis*); Bourd. & G. 1928: 45; M. P. Christ. 1959 (DbA 19): 32 f. 24 (*Sebacina*); Wells 1962 (M 53): 341 f. 8 (*Exidiopsis*); Oberw. 1963 (Bba 36): 52 f. 16 (*Sebacina*).

helvelloides (Schw.) Burt 1915. — *Thelephora* Schw. 1822 (U.S.A., North Carolina); Fr. 1828; *Corticium* Mass. 1890. — Fr. 1828 E. 1: 193 (*Thelephora*); Burt 1915 (AMo 2): 756 pl. 27 f. 14; McGuire 1941 (Ll 4): 13 fs. 2, 10-14 (*Sebacina*).

Corticium basale Peck 1890 (RNS 43): 69 (U.S.A., New York); fide Burt 1915 (AMo 2): 757 & McGuire 1941 (Ll 4): 13.

Sebacina chlorascens Burt 1915 (AMo 2): 756 f. 1, pl. 27 f. 15 (U.S.A., Florida); fide McGuire 1941 (Ll 4): 13, 14, 16.

[Sebacina]

Sebacina alutacea Wakef. 1922 (BmI): 162 fig. (India); fide Wells 1962 (M 53): 359.
inclusa Oberw. 1964 (Germany). — Oberw. 1964 (NH 7): 496 pl. 33 fs. 14-19.
incrustans (Pers. per Fr.) Tul. 1871 (54). — *Corticium* Pers. 1796 (Germany) (d.n.);
Thelephora Pers. 1801 (d.n.) per Fr. 1821; *Corticium* P. Karst. 1868. — Fr. 1828
 E. 1: 214 (*Thelephora*); Tul. 1872 (ASn V 15): 225 pl. 10 fs. 6-10; Pat. 1883
 T.a. 1: 67 f. 155; Bref. 1888 U. 7: 103 pl. 6 f. 22, exclusive of so-called conidial
 state depicted in fs. 23, 24, cf. Arnaud 1951 (BmF 67): 195 & Donk 1962 (Pe 2): 219;
 Bres. 1897 (AAR III 3): 117; Lloyd 1917 (LMW 5): 744 f. 1115; 1925 (LMW 7):
 1361 pl. 342 fs. 3238, 3240; Delécluse 1937 (BmF 53): 139 f. 6; McGuire 1941
 (Ll 4): 12 fs. 1, 7-9; Pilát 1957 (SnP 13): 155 pls. 19, 20; M. P. Christ. 1959
 (DbA 19): 26 f. 17; Oberw. 1963 (Bba 36): 53 f. 20 (*Sebacina*). — Fide Pers.
 1822: 135 = *Thelephora sebacea* ("fungus adustum sistit"); fide Bres. 1903 (Am 1):
 116 ("Tul.") = *Sebacina laciniata* [sensu Bres.].

Merisma penicillatum Pers. 1797 C.: 228/96 (Germany) (d.n.); fide Bres. 1897
 (AAR III 3): 117. — *Thelephora* (Pers.) per Fr. 1821; *Merisma* Wallr. 1833, mis-
 applied; ≡ *Clavaria incrustans* Poir. 1811 (d.n.). — Sensu Fr. 1828 = *Thelephora* sp.

Merisma cristatum Pers. 1797 C.: 228/96 (Germany) (d.n.) (54); fide Bres.
 1897 (AAR III 3): 117. — *Thelephora* (Pers.) per Fr. 1821; *Merisma* S. F. Gray
 1821, Pers. 1822; *Corticium* P. Karst. 1882; *Cristella* Pat. 1887 (nom. nud.: n.v.p.),
 1900, misapplied; *Sebacina* Lloyd 1925 (n.v.p.). — Lloyd 1925 (LMW 7): 1361 pl.
 342 f. 3241 (*Sebacina*). — Sensu Pat. = *Cristella fastidiosa* (Pers. per Fr.) Brinkm.

Merisma serratum Pers. 1797 (Germany) (d.n.); fide Fr. 1828 E. 1: 214 &
 Bres. 1897 (AAR III 3): 117. — *Clavaria* Poir. 1811 (d.n.); *Merisma* Pers. per
 Pers. 1822; *Thelephora* Hornem. 1827. — Pers. 1797 C.: 239/106 pl. 4 f. 4.

Thelephora sebacea Pers. 1801: 577 (Germany) (d.n.); fide Fr. 1828 E. 1: 214 &
 Bres. 1897 (AAR III 3): 117. — *Thelephora* Pers. per Pers. 1822; *Corticium* Quél.
 1886, Mass. 1890.

Corticium deglubens B. & C. apud Berk. 1873 (U.S.A., Alabama); fide Rog. &
 Jacks. 1943 (Fa 1): 327. — *Sebacina* Burt 1915. — Burt 1915 (AMo 2): 755
 (*Sebacina*).

Irpex hypogaeus Fuck. 1873 (Jna 27-28): 88 (Germany); fide Bres. 1920 (Am
 18): 70 = *Sebacina laciniata* [sensu Bres.].

Thelephora gelatinosa Saut. 1876 (H 15): 152 (Austria); fide Keissl. 1917
 (AW 31): 112 = *Thelephora sebacea*.

Dacrymyces albus Lib. ex Roum. 1880 (Rm 2): 24 (Belgium); fide Lloyd 1921
 (LMW 6): 1051. — ≡ *Tremella culmorum* Cooke 1880 (typonym).

Clavaria rivalis Britz. 1890 (Germany) (54). — Britz. 1890 (BnS 30): 33
 [pl. 742 f. 49].

? *Sebacina amesii* Lloyd 1916 (LMW 5): 576 fs. 810-812 (U.S.A., New York);
 cf. McGuire 1941 (Ll 4): 12, 13.

? *Sebacina spongiosa* Lloyd 1918 (LMW 5): 779 f. 1174 (West Indies, Ba-
 hama Islands); cf. McGuire 1941 (Ll 4): 16 ("probably the purplish form of

[Sebacina]

S. helvelloides”) & Wells 1962 (M 53): 366 (“probably . . . *Sebacina incrustans*”).

Pythogaster subiculoides Lloyd 1922 (LMW 7): 1143 *pl.* 206 *f.* 2181 (Canada); fide G. W. Mart. 1952 (SIA 19^a): 53.

Sebacina bresadolae Lloyd 1925 (LMW 7): 1362 *pl.* 342 *f.* 3243 (as a form of *S. incrustans*: n.v.p.) (Italy) (54).

M.—*Clavaria laciniata* Schaeff. sensu Bull. (54); fide Pers. 1801: 583, Fr. 1821: 434, & Bres. 1897 (AAR III 3): 117. — Bull. 1788: *pl.* 415 *f.* 1; 1791 H.: 208 (*Clavaria*); Bres. 1903 (Am 1): 116; Bourd. & G. 1928: 39; Bres. 1932 (BIm 23): *pl.* 1123; Neuh. 1936 (ABS 28¹): 27 *pl.* 6 (*Sebacina*).

M.—*Thelephora byssoides* Pers. sensu Bon. 1870: 52; fide Donk 1963 (Ta 12): 167.

? M.—*Corticium caesium* Pers. sensu Tul. 1871 (JLS 13): 37; 1872 (ASn V 15): 226 (*Sebacina*). — Cf. *Sebacina caesia*.

interna Poelt & Oberw. apud Oberw. 1964 (Germany). — Oberw. 1964 (NH 7): 496 *pl.* 33 *fs.* 20–25.

invisibilis Oberw. 1963 (Germany). — Oberw. 1963 (Bba 36): 49 *f.* 9.

laccata Bourd. & G. 1924 (France). — *Exidiopsis* Luck apud Wells 1962. — Bourd. & G. 1928: 41 *f.* 20 (*Sebacina*); Wells 1962 (M 53): 340 *f.* 7 (*Exidiopsis*).

Sebacina mesomorpha Bourd. & G. 1924 (France); fide Luck apud Wells 1962 (M 53): 340, 341. — Bourd. & G. 1928: 41; Wells 1959, cytology.

livescens Bres. 1898 (Italy). — *Thelephora* Sacc. & Syd. 1902; *Exidiopsis* Bourd. & L. Maire 1920. — Bres. 1898 F.t. 2: 64 *pl.* 174 *f.* 1 (*Sebacina*); Bourd. & L. Maire 1920 (BmF 36): 71 (*Exidiopsis*); Bourd. & G. 1928: 41; Bres. 1932 (BIm 23): *pl.* 1125 *f.* 1; Neuh. 1936 (ABS 28¹): 28; McGuire 1941 (L! 4): 43; Oberw. 1963 (Bba 36): 54 *f.* 23 (*Sebacina*).

microbasidia Christ. & Hauersl. apud M. P. Christ. 1959 (Denmark). — M. P. Christ. 1959 (DbA 19): 30 *f.* 22A.

molybdea McGuire 1941 (U.S.A., Iowa). — *Exidiopsis* Ervin 1957. — McGuire 1941 (L! 4): 17 *fs.* 22–25; L. Olive 1944 (JMS 60): 22 *pl.* 6 *fs.* 12–16 (*Sebacina*); Wells 1962 (M 53): 332 *f.* 4 (*Exidiopsis*).

Sebacina atra McGuire 1941 (U.S.A., Iowa); fide Wells 1962 (M 53): 332, 333. — McGuire 1941 (L! 4): 27 *fs.* 67–72.

plumbea Bres. & Torr. apud Torrend 1913 (Portugal) (53), not ~ Burt 1915. — Bres. & Torr. apud Torrend 1913 (Bro 11): 87 *f.* 8; Bourd. & G. 1928: 45.

podlachica Bres. 1903 (Poland). — *Exidiopsis* Ervin 1957. — Bourd. & G. 1928: 45; McGuire 1941 (L! 4): 28 *fs.* 58–61; L. Olive 1947 (M 39): 101 *f.* 9; 1948 (M 40): 598 (*Sebacina*); Wells 1957 (L! 20): 49 *f.* 3 (*Exidiopsis*); Oberw. 1963 (Bba 36): 53 *f.* 15 (*Sebacina*).

Sebacina subhyalina A. Pears. 1928 (England); fide Wells 1962 (M 53): 367. — A. Pears. 1928 (TBS 13): 70, 71 *f.* 3; M. P. Christ. 1959 (DbA 19): 30 *f.* 22; Wells, l.c.

strigosa Bourd. & G. 1909 (France) (42). — Bourd. & G. 1928: 38 *f.* 18; Delécluse 1937 (BmF 53): 137 *f.* 6; Wells 1962 (M 53): 366.

[Sebacina]

sublilacina G. W. Mart. 1934 (U.S.A., Iowa). — *Exidiopsis* Ervin 1957. — G. W. Mart. 1934 (M 26): 262 *pl.* 31 *fs.* 3-10; McGuire 1941 (Ll 4): 30 *fs.* 62-66; L. Olive 1946 (JMS 62): 68 *pl.* 11 *fs.* 10-18; G. W. Mart. 1952 (SIa 19^a): 61 *f.* 11; M. P. Christ. 1959 (DbA 19): 29 *f.* 21; Wells 1962 (M 53): 321, 367; Reid & Austw. 1963 (GN 18): 331 (*Sebacina*).

M.—*Sebacina fugacissima* Bourd. & G. sensu G. W. Mart. apud Whelden 1935 (M 27): 503 *f.* 2; fide McGuire 1941 (Ll 4): 30.

tuberculosa Torrend 1913 (Portugal). — Torrend 1913 (Bro 11): 88; Bourd. & G. 1928: 43; Pilát 1957 (SnP 13): 159 *pl.* 22 *f.* a.

umbrina D. P. Rog. 1935 (U.S.A., Iowa) (53). — *Bourdolia* Pilát 1957. — D. P. Rog. 1935 (SIa 17): 39 *f.* 19; Mc Guire 1941 (Ll 4): 32 *fs.* 75-79; ? M. P. Christ. 1959 (DbA 19): 24 *f.* 13; Wells 1960 (M 51): 561; Oberw. 1963 (Bba 36): 49 *f.* 10.

vermifera Oberw. 1964 (Germany). — Oberw. 1964 (NH 7): 495 *pl.* 33 *fs.* 1-7.

SIROBASIDIUM Lag. & Pat. (55)

1892 [1958 (Ta 7): 243]. — Lectotype: *Sirobasidium sanguineum* Lag. & Pat.

SPECIAL LITERATURE.—Bandoni, 1957b; Kobayasi, 1962; Lagerheim & Patouillard, 1892; Lowy, 1956.

brefeldianum A. Möll. 1895 (Brazil) f. *microsporum* Maire 1945 (France) (56) — Maire 1945 (BAN 36): 38 *f.* 8.

STYPELLA A. Möll. (44, 57)

1895 [1958 (Ta 7): 224]. — Lectotype: *Stypella papillata* A. Möll.

Gloosebacina Neuh. 1924 [1958 (Ta 7): 198]. — Lectotype: *Stypella papillata* A. Möll.

SPECIAL LITERATURE.—Martin, 1934; Svrček, 1950.

papillata A. Möll. 1895 (Brazil) (57). — *Sebacina* Pat. 1900. — Sensus G. W. Mart. 1934 (SIa 16): 144 *f.* 1; Oberw. 1963 (Bba 36): 54 *f.* 13 (*Stypella*).

? *Protomerulius farlowii* Burt 1919 (AMo 6): 175 *f.* 1 (U.S.A., New Hampshire); fide G. W. Mart. 1952 (SIa 19^a): 61 (from description).

Sebacina crystallina Bourd. 1922, in obs., Rea 1922 (France) (57); fide Luck 1960 (CJB 38): 560, 568. — *Heterochaetella* Bourd. 1921 (as a sp. of *Sebacina*: n.v.p.), Bourd. & G. 1928. — Bourd. 1921 (TBS 7): 53 *f.* 2; Bourd. & G. 1928: 52; Svrček 1950 (ČM 4): 39 *fig.*; Reid & Austw. 1963 (GN 18): 330 (*Heterochaetella*).

TREMELLA Pers. per St-Am.

1821: Fr. 1822, not ~ L. 1753 (d.n.; 'Nostocaceae heterocystae'), not ~ S. F. Gray 1821 (Tremellaceae), not ~ Arth. 1901 (Uredinales), &c. [1958 (Ta 7): 247]. — *Tremella* Pers. 1801 (d.n.). — Lectotype: *Tremella mesenterica* Pers.

[*Tremella*]

Gyaria Nees 1816 (provisional alternative name) ex S. F. Gray 1821 [1958 (Ta 7): 200]. — Lectotype: *Tremella mesenterica* Pers.

Naematelia Fr. per Fr. 1822 (nom. conf.) [1958 (Ta 7): 236; 1963 (Ta 12): 166] (60). — *Naematelia* Fr. 1816 (nom. nud.), 1818 (d.n.). — Lectotype: *Tremella encephala* Pers. per Pers.

Encephalium (Link per Pers.) Brongn. 1824 (nom. conf.) [1958 (Ta 7): 195]. — *Encephalium* Link 1816 (d.n.); *Tremella* sect. *Encephalium* (Link) per Pers. 1822. — Monotype: *Encephalium aurantiacum* Link.

Epidochium Fr. 1849 [1958 (Ta 7): 195]. — Lectotype: *Agyrium atrovirens* Fr.

Phaeotremella Rea 1912 [1928 (Ta 7): 238]. — Monotype: *Phaeotremella pseudofoliacea* Rea.

? *Dermatangium* Velen 1926 [1958 (Ta 7): 250]. — Monotype: *Dermatangium laevisporum* Velen.

? *Nakaomyces* Y. Kobay. 1939 (nom. conf.) [1958 (Ta 7): 237]. — Holotype: *Nakaomyces nipponicus* Y. Kobay.

Hormomyces Bon. 1851 (nom. anam.) [1962 (Ta 11): 86]. — Monotype: *Hormomyces aurantiacus* Bon.

SPECIAL LITERATURE.—Bandoni, 1961, 1963a; Christiansen, 1954; Dangeard, 1895; Kobayasi, 1939a; Looney, 1933; Neuhoﬀ, 1931, 1933; Pilát, 1953; Velenovský, 1926; Whelden, 1934, 1935a.

candida Pers. per Pers. 1822 (58), not ~ Lloyd 1919. — *Tremella* Pers. 1801 (Germany) (d.n.), not ~ Timm 1788 (d.n.).

M.—*Tremella albidia* Huds. sensu Bourd. & G. 1909. — Bourd. & G. 1928: 21 f. 13; ? Bres. 1932 (Blm 23): pl. 1121 f. 1; Schiefel. 1942 (ZP 21): pl. 3 fig. & 1948 (ZP 21): 9; 1942 (Her 3): 295 pl. 4 f. 1.

cerebrina Bull. per St-Am. 1821 (59). — *Tremella* Bull. 1788 (France) (d.n.); *Ulocolla* Bres. 1920. — Bull. 1788: pl. 386; 1791 H.: 221. — Cf. *Tremella frondosa* sensu Quél.

encephala Pers. per Pers. 1822 (61, 62); fide Bandoni 1961 (AMN 66): 322 based on two distinct fungi forming a compound fruitbody, viz. *Stereum sanguinolentum* (A. & S. per Fr.) Fr. parasitized by a species of *Tremella*. — *Tremella* Pers. 1801 (d.n.); *Naematelia* Fr. 1818 (d.n.); *Naematelia* (Pers. per Pers.) Fr. 1822; ≡ *Tremella encephaliformis* Willd. 1788 (Germany) (nom. conf.?) (d.n.); *Naematelia* (Willd.) per Coker 1920; *Tremella* Jaap 1922; ≡ *Tremella encephaloides* Gmel. 1791 ("ancephaloides") (d.n.); ≡ *Encephalium aurantiacum* Link 1816 (d.n.); ≡ *Tremella encephaloidea* Spreng. 1827, not/an *T. encephalodes* Schum. 1803 (d.n.). — A. & S. 1805: 301; Bref. 1888 U. 7: 127 pl. 8 fs. 20–24 (*Tremella*); Lloyd 1922 (LMW 7): 1149 pl. 213 fs. 2223, 2224, 2227 (*Naematelia*); Bourd. & G. 1928: 24 f. 15 (*Tremella*); Neu. 1938 (PM 2a): 55 pl. 8 fs. 1–12, unfinished; Y. Kobay. 1939 (SRT 4): 6 f. 4 (*Naematelia*); Pilát 1957 (SnP 13): 176 pl. 22 f. b, pl. 25 (*Tremella*);—all with the epithet 'encephala'.

Tremella fragiformis Pers. 1801 (Germany) (nom. conf.?) (d.n.); fide Höhn. 1917 (Am 15): 294 & Neu. 1936 (ABS 28¹): 23, 1938 (PM 2a): 56. — *Dacrymyces* Mart. 1817 (d.n.); *Tremella* Pers. per Pers. 1822; *Dacrymyces* Fr. 1822; *Naematelia* Lloyd 1922 (n.v.p.). — Pers. 1804 I.p.: 23 pl. 10 f. 1 (*Tremella*).

[Tremella]

Tremella alabastrina Bref. 1888 (Germany) (nom. conf. ?); fide Donk 1931 (MmV 18-20): 110 & Neuh. 1936 (ABS 28¹): 23, 1938 (PM 2a): 56. — Bref. 1888 U. 7: 129 *pl. 8 fs. 29-33*.

Naematelia japonica Lloyd 1915 (LMW 4, L. 54): 5 *fig.* on p. 7 (Japan) (nom. conf.); fide Y. Kobay. 1939 (SRT 4): 7. — *Tremella* (Lloyd) apud Yas. 1915 (typonym).

M.—*Naematelia rubiformis* Fr. sensu Bourd. & G. 1928: 25; fide Neuh. 1938 (PM 2a): 56.

exigua Desm. 1846 (France) (71). — Desm. 1847 (ASn III 8): 191; Gillot & Luc. 1891 (BA_t 4): 453. — Fide Fr. 1849: 471 = *Epidochium atrovirens*.

Agyrium atrovirens Fr. 1822. — *Epidochium* Fr. 1849; *Tremella* Sacc. 1888, not ~ Bull. 1783 (d.n.), not ~ Secr. 1833. — Sacc. 1888 (SF 6): 790; Bourd. & G. 1928: 25 *f. 16*; Neuh. 1931 (ZP 10): 75; Donk 1931 (MmV 18-20): 111; Lund. & Nannf. 1936 (LNF 5-6): 30 No. 262 (*Tremella*).

? *Naematelia virescens* Corda 1839 I. 3: 35 *pl. 6 f. 90* (Austria); fide Sacc. 1888 (SF 6): 790 & Neuh. 1936 (ABS 28¹): 21 = *Tremella atrovirens*. — *Tremella* Bres. 1932, misapplied?, not ~ (Schum. per Fr.) Bref. 1888. — A very doubtful synonym.

Exidia minutula Sacc. 1879 (Mi 1): 502 (France); fide Sacc. 1880 (Mi 2): 43 = *Epidochium atrovirens*.

Tremella genistae Lib. ex Roum. 1880 (Belgium); fide Sacc. 1888 (SF 6): 790 & Donk 1931 (MmV 18-20): 111 = *Tremella atrovirens*. — Bref. 1888 U. 7: 123 *pl. 8 fs. 7-13*.

foliacea (Pers. per S. F. Gray) Pers. 1822: Fr. 1822 (63). — *Tremella* Pers. 1799 (Germany) (d.n.): *Gyraria* (Pers.) per S. F. Gray 1821; *Naematelia* Bon. 1864; *Ulocolla* Bref. 1888, misapplied; *Exidia* P. Karst. 1889, misapplied. — Sensu Fr. 1822: 212; Bres. 1900 F.t. 2: 97 *pl. 209 f. 1*; Bourd. & G. 1928: 20; Neuh. 1933 (SZP 11): 97 *pl. 23 fig.*; 1936 (ABS 28¹): 19; 1938 (PM 2a): *Ft. 9*; Pilát 1957 (SnP 13): 177 *pls. 26, 27, pl. 28 f. a*. — Sensu Bref. → *Exidia saccharina*.

Tremella verticalis Bull. 1785: *pl. 272* (France) (d.n.) (63); fide Fr. 1822: 212 = *T. fimbriata* ("optime"); fide Neuh. 1936 (ABS 28¹): 20 = *Tremella foliacea* sensu Bres. — *Tremella* Bull. per Sacc. 1916.

Tremella undulata Hoffm. 1787 (Germany) (d.n.) (63). — *Tremella* Hoffm. per Pollini 1824, not ~ Paul. 1812-1835 (n.v.p.?). — Hoffm. 1787 V.c. 1: 32 *pl. 7 f. 1*; J. Schroet. 1888: 396; A. Möll. 1895 (BMS 8): 111 *pl. 2 f. 1*, on *pl.* as *T. undulata f. brasiliensis*.

Merulius lichenoides Schrank 1789: 575 (Germany) (d.n.); fide Strauss 1850 48 & Donk.

Tremella fimbriata Pers. 1799 O. 2: 97 (Germany) (d.n.) (63). — *Tremella* Pers. per Pers. 1822: Fr. 1822. — Fr. 1822: 212.

Tremella ferruginea Sm. 1805 (EB 21): *pl. 1452* (England) (d.n.), not ~ Schum.

[Tremella]

1803 (d.n.); fide Fr. 1874: 690 (var. obscurior). — *Tremella* Sm. per Hook. 1821, not ~ Schum. per Pers. 1822; *Gyraria* S. F. Gray 1821.

Tremella grandis Roth 1806 (Germany) (d.n.). — *Tremella* Roth per Steud. 1824 ("Retz.", error). — Roth 1806: 348.

Tremella violacea (Bull.) Pers. 1818 (d.n.) (63), not ~ Relh. 1785 (d.n.) & (Pers. per S. F. Gray) Pers. 1822. — *Tremella mesenteriformis* var. Bull. 1791 H.: 230 [pl. 499 f. 6X] (France); = *Tremella tinctoria* Pers. 1822.

Tremella succinea Pers. 1822: 101 ("succina") (Europe) (63); fide Neuh. 1931 (ZP 10): 73 (var.); 1936 (ABS 28¹): 21 pl. 4 f. A (forma).

? *Tremella badia* Chev. 1826: 95 pl. 7 f. 8 (France); fide Berk. 1836: 215 = *Tremella ferruginea*.

Phaeotremella pseudofoliacea Rea 1912 (England) (63). — Rea 1912 (TBS 3): 377 pl. 20 fig.; 1922: 733.

Ulocolla mesenteriformis Sacc. 1916: 1277 (France), not *Tremella mesenteriformis* Jacq. per St-Am. 1821. — [*Tremella mesenteriformis* Jacq. sensu Bull. 1788: pl. 406, in part, viz. f. A.] — Fide Fr. 1822: 213 ("Bull. . . t. 406 f. A, a") & Bres. 1900 F.t. 2: 97 ("Bull. . . tab. 406").

M.—*Tremella frondosa* Fr. sensu Tul. 1872 (64). — Tul. 1872 (ASn V 15): 220; Bref. 1888 U. 7: 120 pl. 7 f. 19, pl. 8 fs. 1–6; Coker 1920 (JMS 35): 141 pl. 39, pl. 56 fs. 10, 11; Looney 1933 (Sla 15¹): 24 tpl. 1.

frondosa Fr. 1822: 212 (Sweden) (64), not ~ Roth 1806 (generic name n.v.p.; Chlorophyceae). — *Naematelia* Bon. 1851, misapplied. — Sensu Quél. 1888: 23; Bourd. & G. 1928: 19; ? Neuh. 1936 (ABS 28¹): 22. — Sensu Bon. 1851 → *Tremella mesenterica*; sensu Tul. → *Tremella foliacea*; sensu Quél., cf. *Tremella cerebrina*. **globulus** Bref. 1888 U. 7: 126 pl. 8 fs. 14–19 (Germany), not ~ (Corda) Quél. 1888. — Insufficiently described.

hispanica Lloyd 1919 (Spain). — Lloyd 1919 (LMW 5): 872 fs. 1487, 1488. — Cf. Bandoni 1959 (Ll 21): 145: dubious as to species.

indecorata Sommerf. 1826 (Norway): Fr. 1828 (71). — *Exidia* P. Karst. apud P. Karst. & al. 1890, misapplied. — Fr. 1828 E. 2: 33; Bourd. & G. 1928: 22; Neuh. 1931 (ZP 10): 74; Schiefferd. 1942 (ZP 21): pl. 2 fig. & 1948 (ZP 21): 9; 1942 (Her 3): 295 pl. 3 f. 2. — Sensu P. Karst. = *Exidia* sp.

intumescens Sm. per Hook. 1821: Fr. 1822 (65). — *Tremella* 1808 (England) (d.n.); *Gyraria* (Sm. per Hook.) S. F. Gray 1821; *Exidia* P. Karst., 1889, misapplied, Rea 1922, mixtum. — Sm. 1808 (EB 26): pl. 1870. — Sensu Bon. → *Exidia plana*; sensu Britz. = *Exidia* sp.; sensu P. Karst. = *Exidia* sp.

Tremella nigrescens Fr. 1849 (Sweden) (65). — *Exidia* P. Karst. 1889, misapplied. — Fr. 1863 M. 2: 283; 1874: 690; Bourd. & G. 1928: 20. — Fide Neuh. 1936 (PM 2a): 37 = a form of *Tremella foliacea*; sensu P. Karst. = *Exidia* sp.

lutescens (Pers. per Pers.) Fr. 1822 (66). — *Tremella* Pers. 1800 (Germany) (d.n.); *Tremella mesenterica* var. Pers. 1822. — Pers. 1800 I.D. 2: 33 pl. 8 f. 9; Bourd. & G. 1928: 20 (a distinct species ?); Neuh. 1931 (ZP 10): 73; 1936 (ABS 28¹): 22. —

[Tremella]

Often fused with *T. mesenterica*. — Ssensu Quél. → *Guepinopsis buccina*; sensu Bref. → *Tremella mesenterica*.

? *Tremella flavidula* Lloyd 1924 (LMW 7): 1276 pl. 289 f. 2827 (U.S.A. Massachusetts). — Bandoni 1959 (Ll 21): 144 f. 15.

mesenterica Retz. per Hook. 1821: Fr. 1822 (66). — *Tremella* Retz. 1769 (d.n.), not ~ Steud. 1824; [*Nostoc luteum, mesenterii forma* Vaill. 1727: pl. 14 f. 4 (France)]; ≡ *Helvella mesenterica* Schaeff. 1774 (d.n.), not ~ Holm 1781 (d.n.), not ~ Dicks. 1785 (d.n.); ≡ *Tremella mesenteriformis* Jacq. 1778 (d.n.) per St-Am. 1821, Web. 1778 (d.n.), Brot. 1804 (d.n.), not/an ~ Gilib. 1792 (d.n.); ≡ *Tremella mesenteroides* Paul. 1793 (d.n.); ≡ *Tremella mesenterica* Pers. 1801 (≡ *T. mesenteriformis* Jacq.) (d.n.); *Gyaria* (Pers.) per S. F. Gray 1821; *Tremella* Pers. 1822; ≡ *Tremella undulata* Paul. 1812-35: pl. 186 f. 3 (d.n.?), not ~ Hoffm. 1787 (d.n.) per Pollini 1824. — Jacq. 1778 (MaJ 1): 142 pl. 13 (*Tremella mesenteriformis*); Sm. 1800 (EB 10): pl. 709; L. Tul. 1853 (ASn III 19): 195 pl. 10, pl. 11 f. 1; Bref. 1888 U. 7: 118 pl. 7 fs. 13-18; Rolland 1910: 91 pl. 105 f. 237; Bourd. & G. 1928: 21; Neuh. 1938 (PM 2a): pl. 8, text not published; Y. Kobay. 1939 (SRT 4): 17 fs. 11, 12, pl. 3 fs. A-C; Bjørnek. 1944 (Fr 3): 23 3 figs.; Schieferd. 1942 (Her 3): 295 pl. 3 f. 1; G. W. Mart. 1952 (SIa 19³): 75 tpl. 2 f. 17, tpl. 4 f. 32; Bandoni 1963b (*Tremella mesenterica*).

Tremella chrysocoma Bull. 1783: pl. 174 (France) (d.n.); fide Fr. 1822: 214. — ≡ *Tremella expansa* Chev. 1826.

? *Tremella auriformis* Hoffm. 1787 V.c. 1: 31 pl. 6 f. 4 (Germany) (d.n.), not ~ (Schw.) Spreng. 1827; fide Fr. 1822: 214.

Tremella quercina Pollini 1816 (Italy) (d.n.) (64). — *Tremella* Pollini per Pollini 1824. — Pollini 1817: 20 pl. 7 f. 10.

Tremella mesenterica Steud. 1824, not ~ Retz. per Fr. 1822. — [*Tremella mesenterica* Retz. sensu Hoffm. 1787 (Germany). —] Hoffm. 1787 V.c. 1: 35 pl. 7 f. 3.

M.—*Tremella frondosa* Fr. sensu Bon. 1851: 152 pl. 11 f. 232.

M.—*Tremella lutescens* Pers. sensu Bref. 1888; fide Neuh. 1936 (ABS 28¹): 22. — Bref. 1888 U. 7: 109 pl. 7 fs. 1-12; Neuh. 1924 (BAM 8): 267 pl. 3 f. 15; Looney 1933 (SIa 15¹): 28 tpls. 2, 3; L. Olive 1947 (M 39): 95.

Hormomyces aurantiacus Bon. 1851: 150 pl. 11 f. 234 (Germany) (nom. anam.); fide Sacc. 1916: 1281 & Bres. 1932 (BIm 23): text to pl. 1120 f. 1 ("forma conidica").

moriformis Sm. per Purt. 1821, Berk. 1860 (67). — *Tremella* Sm. 1812 (England) (d.n.); *Dacrymyces* Fr. 1822. — Sm. 1812 (EB 34): pl. 2446; Coker 1920 (JMS 35): 148; L. Olive 1958 (BTC 85): 98; Bandoni 1959 (Ll 21): 148 f. 4. — Ssensu Quél. 1872 (MMb II 5): 315; Bourd. & G. 1928: 23 f. 14; Podzimek 1929 (MP 6): 20 fig.; Bres. 1932 (BIm 23): pl. 1121 f. 2; ? J. Favre 1960 (EsN II 6): 362 f. 4.

Tremella colorata Peck 1873 (BBf 1): 62 & 1873 (RNS 25): 83 (U.S.A., New York); fide Coker 1920 (JMS 35): 148.

[Tremella]

Tremella atroglobosa Lloyd 1922 (LMW 7): 1148 *pl.* 212 *f.* 2220 ("atroglobosa") (Brazil); fide Bandoni 1959 (Ll 21): 148.

M.—*Tremella violacea* Pers. sensu Bourd. & G. 1928 (69). — Bourd. & G. 1928: 23.

mycophaga G. W. Mart. 1940 (Canada, Ontario). — G. W. Mart. 1940 (M 32): 686 *f.* 3; L. Olive 1946 (M 38): 541, in obs.; G. W. Mart. 1952 (SIA 19³): 73; M. P. Christ. 1954 (Fr 5): 57 *fs.* 1–3; Pilát 1957 (SnP 13): 187 *pl.* 29.

obscura (L. Olive) M. P. Christ. 1954 (68). — *Tremella mycophaga* var. L. Olive 1946 (U.S.A., Georgia). — L. Olive 1946 (JMS 62): 66 *pl.* 13 *fs.* 1–15 (*Tremella* sp.); 1946 (M 38): 540 *f.* 2: 12–15; 1948 (M 40): 593 (*Tremella mycophaga* var.); M. P. Christ. 1954 (Fr 5): 62 *f.* 7; McNabb 1964 (NZB 2): 409.

pyrenophila Trav. & Migl. apud Migl. & Trav. 1914 (AIV 73³): 1316 *pl.* 1 *f.* 1 (Italy) (71).

simplex Jacks. & Mart. apud G. W. Mart. 1940 (Canada, Ontario). — G. W. Mart. 1940 (M 32): 687 *f.* 4; 1952 (SIA 19³): 73; M. P. Christ. 1954 (Fr 5): 60 *fs.* 4–6.

spicata Bourd. & G. 1924 (France). — Bourd. & G. 1928: 24; Neuh. 1931 (ZP 10): 74.

steidleri (Bres.) Bourd. & G. 1928. — *Tremella encephala* var. Bres. 1908 (Czechoslovakia). — Bres. 1908 (Am 6): 46 (*Tremella encephala* var.); Bourd. & G. 1928: 21 *f.* 12; Schiefeld. 1942 (ZP 21): *pl.* 2 *fig.* & 1948 (ZP 21): 9 (*Tremella*).

? *Dermatangium laevisporum* Velen. 1926 (MP 3): 44 *fig.* (Czechoslovakia); fide Vacek apud Pilát 1948: 287 & Pilát 1957 (SnP 13): 180, but explanation on conclusion still wanting.

tubercularia Berk. 1860 (71). — ≡ *Tubercularia albidula* Berk. 1836 (England). — Bourd. & L. Maire 1920 (BmF 36): 69; Bourd. & G. 1928: 25; Neuh. 1931 (ZP 10): 75; Donk 1931 (MmV 18–20): 110; Schiefeld. 1942 (ZP 21): *pl.* 2 *fig.* & 1942 (ZP 21): 8; 1942 (Her 3): 295 *pl.* 2 *f.* 2 [= 1]; G. W. Mart. 1952 (SIA 19³): 72.

uliginosa P. Karst. 1883 (Mfe 9): 111 (Finland).

versicolor B. & Br. 1854 (England). — Neuh. 1931 (ZP 10): 75; 1936 (ABS 28¹): 24.

virescens (Schum. per Fr.) Bref. 1888 (70), Quél. 1888; not ~ (Corda) Bres. 1932. — *Tremella* Schum. 1803 (Denmark) (d.n.); *Dacrymyces* (Schum.) per Fr. 1822. — Hornem. 1825 (Fd 11 / F. 31): 14 *pl.* 1857 *f.* 1, presumably Schumacher's original drawing (*Dacrymyces*); ? Bref. 1888 U. 7: 128 *pl.* 8 *fs.* 25–28; Bourd. & G. 1928: 22; Neuh. 1931 (ZP 10): 74 (*Tremella*).

Incertae sedis: 'Microtremella'

SPECIAL LITERATURE.—Gordon, 1938; Linder, 1933; Martin, 1934.

albescens (Sacc. & Malbr. apud Sacc.) Sacc. 1888. — *Epidochium* Sacc. & Malbr. apud Sacc. 1881 (Mi 2): 305 (France).

[*Tremella*]

coriaria Bres. apud Strass. 1907 (VW 57): 300 (Austria). — \equiv *Tremella coriacea* Sacc. & Trott. 1912.

fusispora Bourd. & G. 1924 (France). — Bourd. & G. 1928: 27; Neuh. 1936 (ABS 28¹): 25.

grilletii Boud. 1885 (France). — *Exidia* Neuh. 1936. — Boud. 1885 (BmF 32): 284 *pl.* 9 *f.* 4; Bourd. & G. 1928: 26 (*Tremella*); Neuh. 1936 (PM 2a): 44 *Ft.* 7 *fs.* 1–3 (*Exidia*).

? *Exidia guttata* Bref. 1888 U. 7: 93 *pl.* 5 *fs.* 12, 13 (Germany); fide Neuh. 1936 (PM 2a): 44. — Very doubtful synonym.

Tremella glacialis Bourd. & G. 1924 (France); fide Neuh. 1936 (PM 2a): 46 (forma). — A. Pears. 1928 (TBS 13): 70 *f.* 2; Bourd. & G. 1928: 26 *f.* 17.

Exidia minutissima Höhn. 1904 (Am 2): 38, not \sim Coker 1928; fide Neuh. 1936 (PM 2a): 41.

rosea Höhn. 1903 (Am 1): 394 (Austria); not \sim (Schreb.) Plan. 1788 (Lichenes; generic name n.v.p.).

Sebacia sphaerospora Bourd. & G. 1924 (France) (72); fide Wells 1962 (M 53): 364 = *Stypella minor* A. Möll. [sensu G. W. Mart.]. — A. Pears. 1928 (TBS 13): 71; Bourd. & G. 1928: 43 *f.* 22; McGuire 1941 (Ll 4): 21 *fs.* 35–37; M. P. Christ. 1959 (DbA 19): 29 *f.* 20A; Wells 1962 (M 53): 363.

Tremella gangliiformis Linder 1933 (U.S.A., Missouri) (72); fide G. W. Mart. 1934 (SIa 16): 147 = *Stypella minor* [sensu G. W. Mart.]. — Linder 1933 (M 25): 108 *f.* 1.

M.—*Stypella minor* A. Möll. sensu G. W. Mart. 1934 (72). — G. W. Mart. 1934 (SIa 16): 145 *f.* 1, *pl.* 6; 1952 (SIa 19³): 44 *tpl.* 1 *f.* 9; L. Olive 1946 (JMS 62): 68 *pl.* 11 *fs.* 19–24; Oberw. 1963 (Bba 36): 54 *f.* 14.

translucens Gordon 1938 (TBS 22): 11 *fs.* 1–4, *pl.* 5 (Scotland).

TREMELLODENDROPSIS (Corner) D. A. Crawf.

1954 [1958 (Ta 7): 248]. — *Aphelaria* subgen. *Tremellodendropsis* Corner 1953. — Holotype: *Aphelaria tuberosa* (Grev.) Corner.

Polyozus P. Karst. 1881 (“*Polyorus*”), not *Polyosus* Lour. 1790 (Rubiaceae) [1954 (Re 2): 471]. — Monotype: *Thelephora contorta* P. Karst.

Pseudotremellodendron D. Reid 1957 [1958 (Ta 7): 241]; fide Corner 1966 (TBS 49): 241. — Holotype: *Clavaria pusio* Berk.

SPECIAL LITERATURE.—Corner, 1966.

tuberosum (Grev.) D. A. Crawf. 1954. — *Merisma* Grev. 1825 (Scotland); *Thelephora* Fr. 1828; *Stereum* Mass. 1892; *Aphelaria* Corner 1950. — Grev. 1825 S. 3: *pl.* 178 (*Merisma*); Corner 1950: 192 *f.* 61; 1953 (AB II 17): 352 (*Aphelaria*); D. A. Crawf. 1954 (TNZ 82): 619 (*Tremellodendropsis*); Thind 1961: 36 *f.* 3; Reid & Austw. 1963 (GN 18): 317 (*Aphelaria*).

Thelephora contorta P. Karst. 1868 (Finland); cf. Bourd. & G. 1928: 82. —

[*Tremellodendropsis*]

Polyozus P. Karst. 1881. — P. Karst. 1885 I. 1: 5 *pl.* (2) *f.* 8 (*Polyozus*); Bourd. & G. 1928: 82 (*Thelephora*).

Lachnocladium semivestitum B. & C. apud Berk. 1873 (U.S.A., Pennsylvania); fide Corner 1950: 192. — Burt 1919 (AMo 6): 271 *pl.* 5 *f.* 4; Coker 1923: 196 *pl.* 78, *pl.* 90 *fs.* 7–11; R. Heim 1934 (TrB 15): 44 *f.* 9.

Clavaria gigaspora Cotton 1907 (England) (n.v.); fide Coker 1923: 198 = *Lachnocladium semivestitum*, & Donk (type). — Cotton 1908 (TBS 3): 33; Cott. & Wak. 1919 (TBS 6): 179.

? *Podoscypha sergentiorum* Maire 1917 (BAN 8): 156 (Algeria); cf. D. Reid 1965: 289.

Stereum grantii Lloyd 1924 (U.S.A., Washington); fide D. Reid 1962 (Pe 2): 132. — Lloyd 1924 (LMW 7): 1314 *pl.* 307 *f.* 3005; D. Reid 1962 (Pe 2): 131 *f.* 20.

TREMISCUS (Pers.) Lév.

1846 [1958 (Ta 7): 249]. — *Tremella* sect. *Tremiscus* Pers. 1822. — Lectotype: *Tremella rufa* Jacq. per Pers.

Guepinia Fr. 1825, not ~ Bast. 1812 (Cruciferae), not ~ Hepp 1864 (Lichenes) [1958 (Ta 7): 199]. — Monotype: *Tremella helvelloides* DC. per Fr. — Sensu Bref., in part → *Femsjonia*, & em. Ulbrich → *Guepininiopsis* sensu; G. W. Mart. 1936 (AJB 23): 629 = *Dacryopinax* G. W. Mart.

Phlogiotis Quél. 1886 [1958 (Ta 7): 239]. — Monotype: *Tremella rufa* Jacq. per Pers. M.—*Gyrocephalus* Pers. sensu Bref. [1958 (Ta 7): 200].

SPECIAL LITERATURE.—Jørstad, 1942; Nillson, 1958.

helvelloides (DC. per Pers.) Donk 1958. — *Tremella* DC. 1805 (“*helvelloides*”) (France) (d.n.) per Pers. 1822; Fr. 1822; *Guepinia* Fr. 1828, not ~ Schw. 1832, not ~ P. Henn. 1895; *Gyrocephalus* Keissl. 1914; *Phlogiotis* G. W. Mart. 1936; ≡ *Gyrocephalus juratensis* Pers. 1824. — Tul. 1871 (JLS 13): 32; 1872 (ASn V 15): 218 *pl.* 10 *fs.* 11–13; Neuha. 1936 (ABS 28¹): 3 *pl.* 1; 1938 (PM 2a): 51 *Fl.* 7 *fs.* 6–15 (*Guepinia*); Pilát 1957 (SnP 13): 199 *pl.* 37, *pl.* 38 *f.* 1 (*Gyrocephalus*); Poelt & Jahn 1964: *pl.* 24 *fig.* (*Phlogiotis*).

Tremella rufa Jacq. per Pers. 1822; fide Tul. 1872 (ASn V 15): 219. — *Tremella* Jacq. 1778 (Austria) (d.n.); *Guepinia* G. Beck 1884 (n.v.); *Phlogiotis* Quél. 1886; *Gyrocephalus* Bref. 1888. — Bref. 1888 U. 7: 131 *pl.* 6 *f.* 27 (*Gyrocephalus*); Pat. 1889 T.a. 2: 69 *f.* 688; Bres. 1899 F.m.: 111 *pl.* 103 (*Guepinia*); Atk. 1900: 207 *f.* 197 / 1901: 207 *f.* 208 (*Gyrocephalus*); Rolland 1910: 92 *pl.* 105 *f.* 240; Bres. 1932 (BIm 23): *pl.* 1130 (*Guepinia*).

Peziza leveillei L. March. 1826 (BnW 1): 421 (Luxemburg).

TULASNELLACEAE Juel 1897 (73)

Tulasnellales Rea 1922.

Ceratobasidiaceae G. W. Mart. 1948.

Tulasnellineae Juel 1898.

SPECIAL LITERATURE.—Donk, 1954, 1956a, 1958c; Martin, 1957; Olive, 1957a; Talbot, 1965.

CERATOBASIDIUM D. P. Rog (74)

1935 [1957 (Ta 6): 23]. — Holotype: *Ceratobasidium calosporum* D. P. Rog.

Koleroga Donk 1958 (Fu 28): 35. — Holotype: *Koleroga noxia* Donk.

M.—*Pellicularia* Cooke [1957 (Ta 6): 106] sensu Höhn. 1910 (SbW 119): 395 ('type' reduced to *Corticium*); D. P. Rog. 1943, in part, including 'type'. — Cf. Donk 1954 (Re 2): 425–434; Talbot 1965 (Pe 3): 371.

SPECIAL LITERATURE.—Flentje, Stretton, & Hawn, 1963; Gregor, 1932, 1935; Jackson, 1949; Rogers, 1935.

anceps (Bres. & Syd. apud Syd.) H. S. Jacks. 1949. — *Tulasnella* Bres. & Syd. apud Syd. 1910 (Germany); *Corticium* Gregor 1932. — D. P. Rog. 1932 (BG 94): 96 fs. 69–79 (*Tulasnella*); Gregor 1932 (Am 30): 464; 1935 (PhZ 8): 401 fs. 1–11 (*Corticium*); H. S. Jacks. 1949 (CJR 27): 243 f. 1, pls. 1–3; Boid. 1958: 103; Talbot 1965 (Pe 3): 386 f. 6 (*Ceratobasidium*).

M.—*Corticium vagum* B. & C. apud Berk. sensu Pilát 1957 (ČM 11): 81 (*Ceratobasidium*).

Sclerotium deciduum J. J. Dav. 1919 (TWA 19): 689 (U.S.A., Wisconsin) (nom. anam.); fide H. S. Jacks. 1949 (CJR 27): 242, 243.

cornigerum (Bourd.) D. P. Rog. 1935. — *Corticium* Bourd. 1922 (France). — Bourd. & G. 1928: 241 f. 74 (*Corticium*); D. P. Rog. 1935 (SIa 17): 5 f. 2; Boid. 1958: 102 tpl. 3 fs. 5, 6; M. P. Christ. 1959 (DbA 19): 48 f. 42; Talbot 1965 (Pe 3): 368 fs. 1, 10, 11 (*Ceratobasidium*).

pseudocornigerum M. P. Christ. 1959 (Denmark). — M. P. Christ. 1959 (DbA 19): 46 f. 41.

EXOBASIDIELLUM Donk (75)

1931 [1956 (Re 4): 116]. — Monotype: *Exobasidium graminicola* Bres.

graminicola (Bres.) Donk 1966 (75). — *Exobasidium* Bres. in Krieg. 1891 (Germany) (n.v.); Bres. 1913. — Bres. 1893 (H 32): 32.

OLIVEONIA Donk (76)

1958 [1963 (Ta 12): 162] ≡ *Heteromyces* L. Olive 1957, not ~ Müll.-Arg. 1889 (Lichenes) [1963 (Ta 12): 161]. — Holotype: *Sebacina fibrillosa* Burt.

atrata (Bres.) Talbot 1965. — *Corticium* Bres. 1896 (Brazil); *Ceratobasidium* D. P. Rog. apud G. W. Mart. 1941. — G. W. Mart. 1941 (Ll 4): 262, distribution, synonymy; Rog. & Jacks. 1943 (Fa 1): 272, notes; G. W. Mart. 1952 (SIa 19^s): 12; Wakef. 1952 (TBS 35): 64 f. 36 (*Ceratobasidium*); Talbot 1965 (Pe 3): 381 f. 20 (*Oliveonia*).

Tulasnella metallica J. Rick 1934 (Bro 3): 169 (Brazil); fide D. P. Rog. apud G. W. Mart. 1941 (Ll 4): 262 & Rog. & Jacks. 1943 (Fa 1): 272, 273.

Ceratobasidium plumbeum G. W. Mart. 1939 (Panamá); fide D. P. Rog. apud G. W. Mart. 1944 (Ll 4): 263 & Rog. & Jacks. 1943 (Fa 1): 273. — G. W. Mart. 1939 (M 31): 513 fs. 21–27.

THANATEPHORUS Donk (77)

1956 [1957 (Ta 6): 117]. — Holotype: *Hypochnus solani* Prill. & Del.

Moniliopsis Ruhland 1908 (nom. anam.) [1962 (Ta 11): 89]; fide Dugg. 1916 (78). — Monotype: *Moniliopsis aderholdii* Ruhland.

Orcheomyces Burgeff ex Hch. Wolff 1925 (VsG 106^a): 155 (nom. anam.) (79). — *Orcheomyces*/*Orcheomyces* Burgeff 1909 (non-binomial name) [1962 (Ta 11): 93]. — Type: to be selected.

SPECIAL LITERATURE.—Bernard, 1909; Boerema, 1964; Braun, 1930; Burchard, 1929; Butler, 1957; Castellani, 1934a-c; Costantin, 1924; Costantin & Dufour, 1920; Curtis, 1939; Donk, 1953; Dowdie, 1943, 1959; Duggar, 1915, 1916; Flentje, 1952, 1956; Flentje & Stretton, 1964; Flentje, Stretton, & Hawn, 1963; Frank, 1883; Hawn & Vanterpool, 1953; Kernkamp & al., 1952; Kotila, 1929; Marchionatto, 1946; Mollison, 1913; Müller, 1924; Papavizas, 1965; Prillieux & Delacroix, 1891; Rolfs, 1903, 1904; Ruhland, 1908; Saksena, 1961a, 1961b; Sanford & Skoropad, 1955; Schenck, 1924; Schultz, 1937; Townsend & Willetts, 1954; Whetzel & Arthur, 1925; Whitney, 1964; Wolff, 1926.

cucumeris (Frank) Donk 1956 (77, 80). — *Hypochnus* Frank 1883 (Germany). — Frank 1883 (LJb 2): 524 [cf. Donk 1958 (Fu 28): 31]; 1896: 219 (*Hypochnus*); M. P. Christ. 1960 (DbA 19): 68 f. 48; Warc. & Talb. 1962 (TBS 45): 500 f. 3; Talbot 1965 (Pe 3): 390 f. 12 (*Thanatephorus*).

Hypochnus solani Prill. & Del. 1891 (France) (77, 80); fide Donk 1956 (Re 3): 376 & 1958 (Fu 28): 32. — *Corticium* Cost. & Duf. 1895; *Corticium vagum* subsp. *C. solani* Bourd. & G. 1928; *Botryobasidium* Donk 1931; *Ceratobasidium* Pilát 1957. — Prill. & Del. 1891 (BmF 7): 220 fig.; K. O. Müll. 1923, 1924 (*Hypochnus*): Donk 1931 (MmV 18-20): 117; D. P. Rog. 1935 (SIa 17): 18 (*Botryobasidium*), J. Daniels 1963 (TBS 46): 497 fs. 3, 4, normal and atypical basidia (*Corticium*).

Hypochnus hellebori Rostr. 1897 (BT 21): 43 (Denmark).

Corticium vagum var. *solani* Burt apud Rolfs 1903 (U.S.A., Colorado), not *Corticium solani* (Prill. & Del.) Cost. & Duf. 1895; fide Burt 1926 (AMo 13): 295 = *Corticium vagum* B. & C. apud Berk. [sensu Burt, in part, = *Thanatephorus cucumeris*]. — Rolfs 1904.

Hypochnus basicola Rostr. 1905 (Denmark) (n.v.). — Rostr. 1902: 334; Lind 1913: 354.

Hypochnus euphrasiae Lagerh. 1909 (Germany); fide Lundell 1959 (LNF 53-54): 23 No. 2657. — *Hypochnus* Lagerh. 1903 (lacking descr.: n.v.p.), 1909; *Corticium* Höhn. apud Jaap 1908 (basionym n.v.p.); *Monilia* Jaap 1908 (basionym n.v.p.); *Corticium* Höhn. apud Jaap 1910. — Lagerh. 1909 (SbT 3): (48) f. 1 (*Hypochnus*).

Hypochnus betae Schenck 1924 (CBa 61): 322 fs. 1-8 (Germany) (81).

M.—*Corticium vagum* B. & C. apud Berk. sensu Burt 1918 (AMo 5): 128 f. 3 & 1926 (AMo 13): 295 f. 3, in part = *Hypochnus solani* Prill. & Del. & *Corticium vagum* var. *solani* Burt apud Rolfs (cited as syns.); fide Donk 1931 (MmV 18-20): 117

[*Thanatephorus*]

= *Botryobasidium solani*. — *Corticium vagum* sensu stricto = *Botryobasidium vagum* (B. & C. apud Berk.) D. P. Rog.

M.—*Hypochnus filamentosus* Pat. apud Pat. & Lag. sensu D. P. Rog. 1943 (Fa 1): 113 f. 11 (*Pellicularia*), in part (80); fide D. P. Rog., l.c. = *Hypochnus solani* (cited as syn.). — Flentje 1956 (TBS 39): 354; Talbot 1958 (Bo 7): 136 f. 8; Boid. 1958: 99 f. 26; Papavizas 1965 (M 57): 95 fs. 1, 2, 5 (*Pellicularia*).

Rhizoctonia rapae Westend. 1851 (BAB 18²): 402 (Belgium) (nom. anam.) (82); ≡ *Rhizoctonia napae* West. & Wall. 1846 (“*napaeae*”; nom. nud.: n.v.p.) (n.v.) ex Kick 1867, Sacc. & Syd. 1899 (“*Napi*”); fide Dugg. 1915 (AMo 2): 444, 445 = *Rhizoctonia solani*.

Rhizoctonia solani Kühn 1858 (nom. anam.) (Germany) (82); fide Dugg. 1915 (AMo 2): 444 = imperfect state of *Corticium vagum* B. & C. apud Berk. [sensu Burt, in part]. — Dugg. 1915 (AMo 2): 424 fs. 5–9; Saks. & Vaart. 1961 (CJB 39): 634 pl. 1 fs. 5, 7.

Rhizoctonia betae Eidam 1888 (JsC 65): 261 (Prussian Silesia, now Poland) (nom. anam.) (11); fide Dugg. 1915 (AMo 2): 427, 450 = *Rhizoctonia solani*. — Pammel 1891 (BIE 15): 244 pls. 3–6; Dugg. 1899 (BCE 163): 239 fs. 49–55.

Rhizoctonia fusca Rostr. 1893 (Denmark) (nom. anam.) (n.v.); fide M. P. Christ. 1960 (DbA 19): 69 (listing of some of Rostrup’s collections) = imperfect state. — Rostr. 1902: 595; Lind 1913: 551.

Moniliopsis aderholdii Ruhland 1908 (Germany) (78); fide Dugg. 1916 (AMo 3): 9. — *Rhizoctonia* Marchion. 1946 (n.v.). — Ruhland 1908 (ALF 6): 76 fs. 1–3.

Moniliopsis klebahnii Burchard 1929 (PhZ 1): 278, 293 fs. 1–4, 10–12 (Germany); fide Marchion. 1946 (RAP 26) 1–4 (n.v.) [cf. 1948 (RaM 27): 101] = *Rhizoctonia aderholdii*.

M.—*Rhizoctonia violacea* Tul. sensu auctt. nonn. — N. Bern. 1909 (ASn IX 9): 29 f. 4B.

praticola (Kotila) Talbot 1965. — *Corticium* Kotila 1929 (U.S.A., Michigan); *Pellicularia* Flentje 1956; *Ceratobasidium* L. Olive 1957 (incomplete ref.: n.v.p.); Saks. & Vaart. 1961; *Thanatephorus* Flentje apud Flentje & al. 1963 (incomplete ref.: n.v.p.). — Kotila 1929 (Ph 19): 1065 fs. 5, 6; Flentje, 1952 (NaL 170): 892 (*Corticium*); 1956 (TBS 39): 353 fs. 1–3 (*Pellicularia*); Boid. 1958: 100 f. 27, tpl. 3 f. 7 (*Corticium*); Saksena 1961 (IPh 13): 165 fs. 1, 2 (*Pellicularia*); Saks. & Vaart. 1961 (CJB 39): 636 pl. 1 fs. 6, 8 (*Ceratobasidium*); Papavizas 1965 (M 57): 95 fs. 3, 4, 6, 7 (*Pellicularia*); Talbot 1965 (Pe 3): 390 f. 13 (*Thanatephorus*). — Perhaps not specifically distinct from *T. cucumeris*.

Rhizoctonia praticola Saks. & Vaart. 1961 (CJB 39): 637 (nom. anam.) (lacking Latin descr. & indication of type: n.v.p.).

sterigmaticum (Bourd.) Talbot 1965. — *Corticium* Bourd. 1922 (France); *Ceratobasidium* D. P. Rog. 1935. — Bourd. & G. 1928: 240 f. 73 (*Corticium*); D. P. Rog. 1935 (SIa 17): 7 f. 4 (*Ceratobasidium*); Talbot 1965 (Pe 3): 390 f. 14 (*Thanatephorus*).

[Thanatephorus]

Nomina anamorphosium

given to species of *Rhizoctonia* that have not yet been authoratively reduced to *Thanatephorus cucumeris*, but which are apparently referable to *Moniliopsis* (78). The perfect states are still unknown; therefore some of these form-species may appear not to belong to *Thanatephorus*.

- Rhizoctonia alpina* E. Cast. 1934 (Italy) (nom. anam.). — E. Cast. 1934c: 71 f. 4, pl. 5 fig.
- Rhizoctonia asclerotica* Burgeff 1936 (Germany) (nom. anam.) (n.v.p.). — Burgeff 1909: 18 pl. 1 fs. 5–7 (*Orcheomyces apiferae*); 1936: 131 fs. 119, 121.
- Rhizoctonia callae* E. Cast. 1934 (Italy) (nom. anam.). — E. Cast. 1934c: 73 f. 6, pl. 6 fig.; Saks. & Vaart. 1961 (CJB 39): 631 pl. 1 f. 1.
- Rhizoctonia cavendishiani* Burgeff 1932: 149 (Germany, greenhouses) (nom. anam.) (83). — ≡ *Rhizoctonia robusta* Burgeff 1936 (typonym; n.v.p.). — Burgeff 1911: 52 fs. 26, 28b [*Mycelium Radicis* (*Oncidium*) *Cavendishiani*]; 1936: 135 fs. 131, 133b; J. T. Curt. 1939 (AJB 26): 393 f. 2 (*Rhizoctonia robusta*).
- Orcheomyces conopeae* Burgeff ex Hch. Wolff 1926 (Germany) (nom. anam.). — *Orcheomyces conopeae* Burgeff 1909 (non-binomial name: n.v.p.). — Burgeff 1909: 26 (*Orcheomyces conopeae*); Hch. Wolff 1926 (JwB 66): 25, 26 f. 9.
- Rhizoctonia fraxini* E. Cast. 1934 (Italy) (nom. anam.). — E. Cast. 1934c: 70 f. 3, pl. 5 fig.
- Rhizoctonia goodyera-repentis* Cost. & Duf. 1920 (RgB 32): 532 (France) (nom. anam.).
- Orcheomyces helleborines-latifoliae* Hch. Wolff 1926 (JwB 66): 25, 26 f. 12 (Switzerland) (nom. anam.).
- Orcheomyces helleborines-palustris* Hch. Wolff 1926 (JwB 66): 25, 26 f. 11 (Switzerland) (nom. anam.).
- Rhizoctonia lanuginosa* N. Bern. 1909 (France, greenhouses) (nom. anam.) (83). — N. Bern. 1909 (ASn IX 9): 34 f. 5; Burgeff 1936: 135 f. 130.
- Rhizoctonia lupini* E. Cast. 1934 (Italy) (nom. anam.). — E. Cast. 1934c: 70 f. 2, pl. 4.
- Orcheomyces maculati* Burgeff ex Hch. Wolff 1926 (Germany). — ≡ *Rhizoctonia anomala* Burgeff 1936 (typonym; n.v.p.). — Burgeff 1909: 22 (*Orcheomyces maculatae*); Hch. Wolff 1926 (JwB 66): 25, 26 f. 10 (*Orcheomyces maculati*); Burgeff 1936: 132 (*Rhizoctonia anomala*).
- Rhizoctonia mucoroides* N. Bern. 1909 (France, greenhouses) (nom. anam.) (83). — N. Bern. 1909 (ASn IX 9): 33 f. 44; Burgeff 1936: 138 fs. 134–138; J. T. Curt. 1939 (AJB 26): 393 f. 3.
- Rhizoctonia neottiae* (Hch. Wolff) Burgeff 1936. — *Orcheomyces* Hch. Wolff 1925 (Switzerland) (nom. anam.). — Hch. Wolff 1926 (JwB 66): 3 fs. 1–5 (*Orcheomyces*); Burgeff 1936: 141 f. 142; J. T. Curt. 1939 (AJB 26): 393 (*Rhizoctonia*).
- Rhizoctonia pini-insignis* E. Cast. 1934 (Italy) (nom. anam.). — E. Cast. 1934c: 72 f. 5.

[Thanatephorus]

Rhizoctonia quercus E. Cast. 1934 (Italy) (nom. anam.). — E. Cast. 1934c: 74 f. 7, pl. 6 fig.

Rhizoctonia repens N. Bern. 1909 (France, greenhouses) (nom. anam.) (83). — N. Bern. 1909 (ASn IX 9): 31 f. 3; Burgeff 1932: 150; 1936: 128 fs. 115–117; J. T. Curt. 1939 (AJB 26): 395 f. 8; Saks. & Vaart. 1961 (CJB 39): 633 pl. 1 f. 3.

Rhizoctonia sclerotica Burgeff 1936 (Germany) (nom. anam.) (n.v.p.). — Burgeff 1909: 18 pl. 1 f. 8, pl. 2 fs. 9, 10 (*Orcheomyces musciferæ*); 1936: 132 fs. 122–124; J. T. Curt. 1939 (AJB 26): 393 f. 5.

Rhizoctonia sphacelati Burgeff 1932: 149 (Germany, greenhouses) (nom. anam.) (83). — ≡ *Rhizoctonia gracilis* Burgeff 1936 (typonym; n.v.p.). — Burgeff 1911, 53 fs. 27, 28a [*Mycelium Radicis* (*Oncidium*) *sphacelati*]; 1936: 136 fs. 132, 133a; J. T. Curt. 1939 (AJB 26): 393 (*Rhizoctonia gracilis*).

Rhizoctonia stahlīi Burgeff 1936 (Germany) (nom. anam.) (n.v.p.). — Burgeff 1909: 23 pl. 3 fs. 19–22 (*Orcheomyces chloranthæ* F.); 1936: 132 fs. 125–129; J. T. Curt. 1939 (AJB 26): 393 f. 4.

Rhizoctonia subtilis Burgeff 1936 (Germany; greenhouse) (nom. anam.) (n.v.p.) (83). — Burgeff 1911: 63 f. 35 [*Mycelium Radicis* (*Lycaste*) *Skinneri*]; 1936: 130 f. 118; J. T. Curt. 1939 (AJB 26): 393 f. 6.

Rhizoctonia tuliparum (Kleb.) Whetz. & Arth. 1925 (84). — *Sclerotium* Kleb. 1905 (Germany) (nom. anam.), not ~ Schlechtend. 1831. — Whetz. & Arth. 1925; Boerema 1964.

TULASNELLA J. Schroet. (85–88)

1888 [1957 (Ta 6): 121]. — Monotype: *Tulasnella lilacina* J. Schroet.

Prototremella Pat. 1888 [1957 (Ta 6): 112]. — Monotype: *Prototremella tulasnei* Pat.

Pachysterigma J.-Ols. apud Bref. 1888 [1957 (Ta 6): 106]. — Lectotype: *Pachysterigma fugax* J.-Ols. apud Bref.

Muciporus Juel 1897 (nom. conf.) [1957 (Ta 6): 84]. — Lectotype: *Muciporus corticola* (Fr.) Juel [sensu Juel], q.v.

Gloeotulasnella Höhn. & L. 1906 (nom. prov.: n.v.p.), 1908 [1957 (Ta 6): 70] (86). — Lectotype: *Tulasnella cystidiophora* Höhn. & L.

SPECIAL LITERATURE.—Boudier, 1896; Brefeld, 1888b; Burt, 1920; Costantin, 1889; Juel, 1897, 1915; Olive, 1957b; Patouillard, 1888; Raunkiaer, 1918; Rogers, 1932, 1933.

albida Bourd. & G. 1928 (France). — Bourd. & G. 1928: 59; sensu L. Olive 1944 (JMS 60): 22 pl. 7 fs. 11–17; sensu M. P. Christ. 1959 (DbA 19): 36 f. 27.

albolilacea Bourd. & G. 1924 (France). — Bourd. & G. 1928: 59.

allantospora Wak. & Pears. 1923 (England). — Wak. & Pears. 1923 (TBS 8): 220 f. 7; Bourd. & G. 1928: 60; D. P. Rog. 1933 (Am 31): 199 pl. 6 f. 5; sensu M. Christ. 1959 (DbA 19): 38 f. 33.

[*Tulasnella*]

- Tulasnella rubropallens* Bourd. & G. 1924 (France), fide D. P. Rog. 1933 (Am 31): 190. — Bourd. & G. 1924 (BmF 39): 264; 1928: 60, in obs., f. 36.
- araneosa** Bourd. & G. 1924 (France). — Bourd. & G. 1928: 62 f. 44; M. P. Christ. 1959 (DbA 19): 37 f. 30. — American descriptions not cited.
- bifrons** Bourd. & G. 1924 (France). — Bourd. & G. 1928: 60 f. 37; sensu D. P. Rog. 1933 (Am 31): 192 pl. 6 f. 7; L. Olive 1944 (JMS 60): 22 pl. 2 f. 4, pl. 7 fs. 18–26.
- brinkmanni** Bres. 1920 (Germany). — Bres. 1920 (Am 18): 50. — An *T. violacea*; cf. D. P. Rog. 1933 (Am 31): 187.
- calospora** (Boud.) Juel 1897 (89, 91). — *Prototremella* Boud. 1896 (France); *Gloeotulasnella* D. P. Rog. 1933. — Bres. 1903 (Am 1): 114; Burt 1926 (AMo 13): 328; Bourd. & G. 1928: 57; A. Pears. 1928 (TBS 13): 72 f. 5 (*Tulasnella*); D. P. Rog. 1933 (Am 31): 201 pl. 7 f. 15; L. Olive 1946 (JMS 62): 69 pl. 13 fs. 16–20; M. P. Christ. 1959 (DbA 19): 41 f. 35A (*Gloeotulasnella*).
- Muciporus deliquescens* Juel 1897 (Sweden) (nom. conf.); fide Juel 1914 (ABS 14¹): 1–8 = *Polyporus corticola* Fr. overgrown by *T. deliquescens*, q.v. — Juel 1897 (BsV 23¹²): 24 pl. (1) fs. 1–15.
- Tulasnella deliquescens* Juel 1914 (ABS 14¹): 7, 8 (Sweden); fide D. P. Rog. 1933 (Am 31): 201.
- curvispora** Donk 1966 (91).
- M.—*Pachysterigma rutilans* J.-Ols. apud Bref. sensu D. P. Rog 1933 (Am 31): 189 pl. 6 f. 4 (*Tulasnella*).
- cystidiophora** Höhn. & L. 1906 (Finland). — *Gloeotulasnella* Höhn. & L. 1908 (generic name n.v.p.), Juel 1914; *Tremella* Oud. 1920 (error). — Höhn. & L. 1906 (SbW 115): 1557 f. 1 (*Tulasnella*); Bourd. & G. 1928: 64 (*Gloeotulasnella*); A. Pears. 1928 (TBS 13): 73 f. 7 (*Tulasnella*); D. P. Rog. 1933 (Am 31): 195 pl. 7 f. 9; L. Olive 1951 (BTC 78): 111 fs. 44–50 (*Gloeotulasnella*).
- M.—*Prototremella tulasnei* Pat. sensu P. Karst. 1896 (H 35): 45; fide Höhn. & L. 1906 (SbW 115): 1557.
- eichleriana** Bres. 1903 (Poland). — Bres. 1903 (Am 1): 113; Brinkm. 1916 (Jwf 44): 47; Burt 1920 (AMo 6): 255 f. 1; Bourd. & G. 1928: 57; ? Jo. Erikss. 1958 (Sbu 16¹): 44 fs. 5a, b.
- fugax** (J.-Ols. apud Bref.) Juel 1897 (90). — *Pachysterigma* J.-Ols. apud Bref. 1888 U. 8: 6 pl. 1 fs. 3, 4 (Germany); *Corticium* Sacc. 1891; *Prototremella* Boud. 1896. — An *T. violacea*; cf. D. P. Rog. 1933 (Am 31): 184, 186.
- fuscoviolacea** Bres. 1900 (Italy). — Burt 1920 (AMo 6): 258 f. 3; Bres. 1932 (BIm 22): pl. 1126 f. 1; D. P. Rog. 1933 (Am 31): 188 pl. 6 f. 3. For Bourd. & G. 1928: 58 f. 34, see D. P. Rog., l.c.
- griseorubella** Litsch. 1932 (Sweden). — *Gloeotulasnella* Pilát (1957). — Litsch. 1932 (SbT 26): 448 f. 1; ? M. P. Christ. 1959 (DbA 19): 36 f. 38.
- helicospora** Raunk. 1919 (Denmark) (89). — *Gloeotulasnella* M. P. Christ. 1959. — Raunk. 1919 (BT 36): 205, 209 f. 1 (*Tulasnella*); M. P. Christ. 1959 (DbA 19): 40 f. 35 (*Gloeotulasnella*). — Fide D. P. Rog. 1933 (Am 31): 201 = *T. calospora*.

[*Tulasnella*]

hyalina Höhn. & L. 1908 (Austria). — *Gloeotulasnella* Höhn. & L. 1908 (nom. nud.: n.v.p.), Juel 1914. — Höhn. & L. 1908 (SbW 117): 1114 f. 8 (*Tulasnella*); Brinkm. 1916 (Jwf 44): 47; Bourd. & G. 1928: 63; D. P. Rog. 1933 (Am 31): 196 pl. 7 f. 10; L. Olive 1954 (BTC 81): 338 fs. 40-48 (*Gloeotulasnella*); 1957 (M 49): 678 (*Tulasnella*).

Gloeotulasnella metachroa Bourd. & G. 1924 (France), fide L. Olive 1957 (M 49): 678. — Bourd. & G. 1928: 63 f. 42; D. P. Rog. 1933 (Am 31): 197 pl. 7 f. 11.

inclusa (M. P. Christ.) Donk 1966 (92). — *Gloeotulasnella* M. P. Christ. 1959 (Denmark). — M. P. Christ. 1959 (DbA 19): 41 f. 36 (*Gloeotulasnella*).

lactea Bourd. & G. 1924 (France). — Bourd. & G. 1928: 57 f. 31; D. P. Rog. 1933 (Am 31): 191 pl. 6 f. 6; ? M. P. Christ. 1959 (DbA 19): 36 f. 29.

microspora Wak. & Pears. 1923 (England). — Wak. & Pears. 1923 (TBS 8): 220 f. 8 (*Tulasnella*); D. P. Rog. 1933 (Am 31): pl. 6 f. 1f (*T. violea*, in part).

obscura Bourd. & G. 1924 (France). — Bourd. & G. 1928: 62 f. 40.

pallida Bres. 1903 (Poland). — Bres. 1903 (Am 1): 114. — An *T. violacea*; cf. D. P. Rog. 1933 (Am 31): 187.

pinicola Bres. 1903 (Poland). — *Gloeotulasnella* D. P. Rog. 1933. — Bres. 1903 (Am 1): 114; Bourd. & G. 1928: 60 (*Tulasnella*); D. P. Rog. 1933 (Am 31): 199 pl. 7 f. 13; L. Olive 1946 (M 38): 543 fs. 3: 1-9, f. 4B; 1947 (M 39): 107 (*Gloeotulasnella*).

pruinosa Bourd. & G. 1924 (France). — Bourd. & G. 1928: 59 f. 35; sensu D. P. Rog. 1933 (Am 31): 193 pl. 6 f. 8; L. Olive 1954 (BTC 81): 335 fs. 23-28; sensu M. P. Christ. 1959 (DbA 19): 37 f. 31.

rosella Bourd. & G. 1924 (France) (89). — Bourd. & G. 1928: 58 f. 33. — Fide D. P. Rog. 1933 (Am 31): 201 = *T. calospora*.

rutilans (J.-Ols. apud Bref.) Juel 1897 (91). — *Pachysterigma* J.-Ols. apud Bref. 1888 (Germany); *Corticium* Sacc. 1891, not ~ Fr. 1874; *Prototremella* Pat. 1900. — Bref. 1888 U. 8: 6 pl. 1 fs. 5-7 (*Pachysterigma*). — Cf. *T. calospora*.

sordida Bourd. & G. 1924 (France). — *Gloeotulasnella* M. P. Christ. 1959. — Bourd. & G. 1928: 61 f. 39; A. Pears. 1928 (TBS 13): 72 f. 6 (*Tulasnella*); M. P. Christ. 1959 (DbA 19): 43 f. 38 (*Gloeotulasnella*).

traumatica (Bourd. & G.) ex Sacc. & Trott. 1912, L. Olive 1957 (France). — *Gloeotulasnella* Bourd. & G. 1909 (as a sp. of *Tulasnella*: n.v.p.); *Gloeotulasnella* Juel 1914. — Bourd. & G. 1928: 64 f. 43; D. P. Rog. 1933 (Am 31): 197; L. Olive 1946 (JMS 62): 69 pl. 14 fs. 1-18 (*Gloeotulasnella*); 1957 (M 49): 677 (*Tulasnella*).

Gloeotulasnella opalea D. P. Rog. 1933 (U.S.A., Iowa), fide Rog. & Jacks. 1943 (Fa 1): 306. — D. P. Rog. 1933 (Am 31): 198 pl. 7 f. 2.

tremelloides Wak. & Pears. 1918 (England). — *Gloeotulasnella* D. P. Rog. 1933. — Wak. & Pears. 1918 (TBS 6): 70 fig.; Bourd. & G. 1928: 61 (*Tulasnella*); D. P. Rog. 1933 (Am 31): 201 pl. 7 f. 14 (*Gloeotulasnella*).

vernica Bourd. & G. 1924 (France). — Bourd. & G. 1928: 61 f. 38.

[*Tulasnella*]

violacea (J.-Ols. apud Bref.) Juel 1897 (88). — *Pachysterigma* J.-Ols. apud Bref. 1888; *Corticium* Sacc. 1891. — Bref. 1888 U. 8: 6 pl. 1 fs. 8–10 (*Pachysterigma*); sensu Bres., cf. 1903 (Am 1): 114 (var. *lilacea*); Wak. & Pears. 1923 (TBS 8): 219 f. 6; Bourd. & G. 1928: 57 f. 32; D. P. Rog. 1933 (Am 31): 186 pl. 6 f. 2; L. Olive 1946 (JMS 62): 69 pl. 14 fs. 19–27; 1947 (M 39): 106 f. 16; M. P. Christ. 1959 (DbA 19): 38 f. 32 (*Tulasnella*).

violea (Quél.) Bourd. & G. 1909. — *Hypochnus* Quél. 1883 (France); *Corticium* Cost. & Duf. 1891, W. G. Sm. 1908. — Bourd. & G. 1909 (BmF 25): 31; Burt 1920 (AMo 6): 257 f. 2; Bourd. & G. 1928: 56; Donk 1931 (MmV 18–20): 116; D. P. Rog. 1933 (Am 31): only as to pl. 6 fs. a–c; Jo. Erikss. 1958 (Sbu 16¹): 44 fs. 5d, c; M. P. Christ. 1959 (DbA 19): 35 f. 26.

Tulasnella lilacina J. Schroet. 1888: 397 (Prussian Silesia, now Poland) (93); fide Bourd. & G. 1909 (BmF 25): 31. — *Corticium* Sacc. 1888, not ~ B. & Br. 1873; not ~ (Quél.) Big. & Guill. 1913; *Prototremella* Pat. 1900.

Prototremella tulasnei Pat. 1888 (France), fide Bourd. & G. 1909 (BmF 25): 31. — *Tulasnella* Juel 1897. — Pat. 1888 (JBM 2): 270 fs. 1–3 (*Prototremella*). — Sensu P. Karst. → *T. cystidiophora*.

Corticium pinicola (Tul.) Sacc. 1888 (93); fide Juel 1897 (BsV 23¹²): 22. — *Corticium incarnatum* var. *pinicola* Tul. 1872 (France); ≡ *Tulasnella incarnata* Bres. apud Strass. 1900 (typonym) (93, 94), not ~ (J.-Ols. apud Bref.) Juel 1897.

— Tul. 1872 (ASn V 15): 227 pl. 10 fs. 3–5 [“*Corticium incarnatum* Fr. (*pinicola*)”].

? *Pachysterigma incarnatum* J.-Ols. apud Bref. 1888 U. 8: 7 pl. 1 fs. 1, 2 (Germany) (94). — *Corticium* Sacc. 1891; *Tulasnella* Juel 1897, not ~ Bres. apud Strass. 1900. — Sensu Bourd. & G. 1909 (BmF 25): 31 (*Tulasnella*).

Tulasnella thelephorea (Juel) Juel 1914. — *Muciporus corticola* f. *thelephoreus* Juel 1897 (Sweden). — Juel 1897 (BsV 23¹²): 23 pl. (1) fs. 16–21, 23–32 (*Muciporus corticola* f.).

M.—*Thelephora incarnata* Pers. per Fr. sensu Tul. 1872 (ASn V 15): 227 [“*Corticium incarnatum* Fr. (*pinicola*)”] (94); fide J. Schroet. 1888: 397 = *Tulasnella lilacina*. — See *Corticium pinicola* (Tul.) Sacc., above.

M.—*Polyporus corticola* Fr. sensu Juel 1897 (*Muciporus*), fide Juel 1914 (ABS 14¹): 1–8 = *Polyporus corticola* overgrown by *T. thelephorea*.

Incertae sedis

Thelephora caesiocarnea Britz. 1897 (BCb 71): 90 [pl. 716 f. 68] (Germany). — Incompletely described.

UTHATOBASIDIUM Donk

1956 [1957 (Ta 6): 121]. — Holotype: *Hypochnus fusisporus* J. Schroet.

fusisporum (J. Schroet.) Donk 1958. — *Hypochnus* J. Schroet. 1888 (Prussian Silesia, now Poland); *Corticium* Brinkm. 1904, misapplied, not ~ Cooke & Ell.

[Uthatobasidium]

1897; *Peniophora* Höhn. & L. 1906, misapplied. — Donk 1958 (Fu 28): 22; M. P. Christ. 1959 (DbA 19): 49 f. 43; Talbot 1965 (Pe 3): 391 f. 15. — Sensu Brinkm., Höhn. & L. = *Jaapia ochroleuca* (Bres. apud Brinkm.) Nannf. & Erikss.

M.—*Hypochnus flavescens* Bon. sensu Fuck. 1871 (Jna 25–26): 291; fide Donk 1958 (Fu 28): 22. — Höhn. 1904 (ÖbZ 54): 428, in obs.; Höhn. & L. 1906 (SbW 115): 1607 & 1907 (SbW 116): 835 f. 17, at least in part; Wak. & Pears. 1920 (TBS 6): 317 fig.; Bourd. & G. 1928: 239 (*Corticium*); D. P. Rog. 1935 (SIa 17): 13 f. 8; Jo. Erikss. 1958 (Sbu 16¹): 59 fs. 12a–e (*Botryobasidium*); Boid. 1958: 95 tpl. 3 f. 10 (*Pellicularia*).

ochraceum (Mass.) Donk 1958. — *Coniophora* Mass. 1889 (England); *Botryobasidium* Donk apud D. P. Rog. 1935. — D. P. Rog. 1935 (SIa 17): 16 f. 7 (*Botryobasidium*); Donk 1958 (Fu 28): 23; M. P. Christ. 1959 (DbA 19): 50 f. 45 (*Uthatobasidium*).

Corticium frustulosum Bres. 1903 (Poland); fide Jo. Erikss. 1958 (Sbu 16¹): 59. — Bres. 1911 (Am 9): 425; Bourd. & G. 1928: 239, 240 (*Corticium*); Jo. Erikss. 1958 (Sbu 16¹): f. 12f (under *Botryobasidium ochraceum*).

Coniophora vaga Burt 1917 (AMo 4): 251 f. 8 (U.S.A., New York); fide D. P. Rog. 1943 (Fa 1): 105, 106 = *Pellicularia flavescens* (Bon.) D. P. Rog. [sensu D. P. Rog., in part = *U. ochraceum*]. — ≡ *Corticium fenestratum* Overh. — Overh. 1934 (M 26): 510 pl. 55 f. 5 (*Corticium fenestratum*).

Incertae sedis

citriforme M. P. Christ. 1959 (Denmark). — M. P. Christ. 1959 (DbA 19): 49 f. 44.

DACRYMYCETALES Lindau 1897 (95, 96)

Calocerales Rea 1922.

Dacrymycetinae J. Schroet. 1885.

Dacrymycetaceae J. Schroet. 1888.

Caloceraceae Rea 1922.

Caloceroideae P. Karst. 1876.

Ditiloideae P. Karst. 1876.

Dacrymycetoideae Sacc. 1888.

SPECIAL LITERATURE.—Brasfield, 1938; Donk, 1964; Kennedy, 1959a; Kobayasi, 1939c; Martin & Fisher, 1933; McNabb, 1964, 1965a–e; Yen, 1947.

CALOCERA (Fr.) Fr.

1825 [1958 (Ta 7): 173; 1963 (Ta 12): 166]. — *Clavaria* subgen. *Calocera* Fr. 1821. — Lectotype: *Clavaria viscosa* Pers. per Fr.

Corynoides S. F. Gray 1821 [1958 (Ta 7): 175; McNabb 1965 (NZB 3): 31–32]. — Lectotype: *Clavaria cornea* Batsch.

Dacryomitra Tul. 1872 [1958 (Ta 7): 177] — Monotype *Dacryomitra pusilla* Tul.

Calopposis Lloyd 1925 [1958 (Ta 7): 173]; fide McNabb 1965 (NZB 3): 32, 33. — Monotype: *Calopposis nodulosa* Lloyd.

[*Calocera*]

SPECIAL LITERATURE.—McNabb, 1965a.

cavarae Bres. apud Cavara 1896 (Italy) (n.v.) (97). — McNabb 1965 (NZB 3): 40 f. 1f (*Calocera viscosa* var.).

cornea (Batsch per Fr.) Fr. 1827: Fr. 1832 (98). — *Clavaria* Batsch 1783 (Germany) (d.n.) per Fr. 1821; *Corynoides* S. F. Gray 1821. — Batsch 1786: 229 pl. 28 f. 161; Pers. 1797 C.: 186/54; Sow. 1796: pl. 40 (*Clavaria*); L. Tul. 1853 (ASn III 19): 224; Pat. 1883 T.a. 1: 68 f. 156; Bref. 1888 U. 7: 164 pl. 11 fs. 14-17; Coker 1920 (JMS 35): 181 pl. 65 fs. 5, 6; Bourd. & G. 1928: 73; M. C. Fish. 1931 (PIa 38): 120 tpl. 1 fs. 10-14; Y. Kobay. 1939 (SRT 4): 222 f. 6A; McNabb 1965 (NZB 3): 41 fs. 18, 2c (*Calocera*).

Clavaria aculeiformis Bull. 1789 (France) (d.n.); fide Pers. 1797 C.: 186/54 & Fr. 1821: 487. — *Clavaria* Bull. per St-Am. 1821; *Tremella* Pers. 1822; *Calocera* Wallr. 1833. — Bull. 1789: pl. 463 f. 4; 1791 H.: 214 (*Clavaria*).

? *Clavaria striata* Hoffm. 1796 (Germany) (d.n.) (100); fide McNabb 1965 (NZB 3): 41, 42. — *Calocera* (Hoffm.) per Fr. 1838. — Hoffm. 1796: pl. 7 f. 1 (*Clavaria*); Bref. 1888 U. 7: 166 pl. 11 f. 18; Bourd. & G. 1928: 73 (*Calocera*).

Tremella palmata Schum. 1803 (Denmark) (d.n.); fide Neuhoﬀ 1936 (ABS 281): 36, 37 (forma). — *Tremella* Schum. per Pers. 1822, not ~ Hedw. f. 1798 (generic name n.v.p.; Chlorophyceae), not ~ Schw. 1832; *Calocera* Fr. 1838. — Bref. 1888 U. 7: 165 pl. 11 fs. 19-21; Lloyd 1920 (LMW 6): 924 pl. 146 fs. 1656, 1657; Bourd. & G. 1928: 73 (*Calocera*).

? *Clavaria cincta* (Pers.) per Secr. 1833, misapplied (99). — [*Clavaria cornea* var. "β. *Cl. cincta*" Pers. 1797 C.: 186/54. —] *Clavaria cornea* var. *cincta* Pers. 1801: 596 (Germany) (d.n.). — Sensus Secr. → *Calocera furcata*.

M.—*Clavaria fasciculata* Pers. sensu Bon. 1851: 153 pl. 11 f. 235 (*Calocera*); cf. McNabb 1965 (NZB 3): 51.

M.—*Clavaria corticalis* Batsch sensu Bref. 1888 U. 7: 164 (*Calocera*).

furcata (Fr.) Fr. 1827: Fr. 1832. — *Clavaria* Fr. 1821 (Sweden). — P. Karst. 1882 (BFI 37): 192; Quél. 1881 (Crf 9): 670 (*Calocera*); Bourd. & G. 1928: 73 (*Calocera flammea* var.); Neuhoﬀ. 1936 (ABS 281): 36, 37 (*Calocera cornea* f.); Bres. 1932 (BIm 23): pl. 1107; McNabb 1965 (NZB 3): 42 f. 1h (*Calocera*).

Ramaria medullaris Holmskj. 1799 (Denmark) (d.n.). — Holmskj. 1799: 79 pl. [18].

Calocera flavida Lloyd 1924 (LMW 7): 1278 pl. 291 f. 2850 (Japan); fide McNabb 1965 (NZB 3): 42, 43. — Y. Kobay. 1939 (SRT 4): 225 f. 6G, pl. 19 f. E.

M.—*Clavaria cornea* var. *cincta* Pers. sensu Secr. 1833 M. 3: 252 (*Clavaria cincta*) (99); fide Fr. 1838: 581 ("Secr. no. 30"). — Sensus originario, = *Calocera cornea*.

M.—*Calocera mucida* (Pers. per Fr.) Wettst. sensu Wettst. 1885 (VW 35): 553 ("Oed. . . [= Hornem.]"); misapplied name re-introduced to replace *Calocera furcata*. — Sensus originario (Pers.) = "*Clavaria*" *mucida* Pers. per Fr.; sensu Hornem., a nomen dubium.

[*Calocera*]

M.—*Calocera mucida* Sacc. ("Hornem. . . non Pers.") sensu Sacc. 1916: 1221; name misapplied to replace *Calocera furcata*. — Sensu Hornem., a nomen dubium. **glossoides** (Pers. per Fr.) Fr. 1827: Fr. 1832 (101). — *Clavaria* Pers. 1797 (Germany) (d.n.) per Fr. 1821; *Tremella* Pers. 1822; *Dacryomitra* Cost. & Duf. 1891, misapplied, not ~ Bref. 1888. — Pers. 1797 C.: 200/68 (*Clavaria*); Quél. 1888: 456; Bourd. & G. 1928: 74 (*Calocera*). — Sensu Cost. & Duf. → *Dacryomitra glossoides* Bref. = *Dacrymitra pusilla*, see next species.

M.—*Calocera cornea* var. *subsimplex* Bres. apud S. Schulz. sensu Britz. 1894 (Bag 31): 179 [pl. 759 f. 32] (*Calocera subsimplex*) (104).

Dacryomitra pusilla Tul. 1872 (France) (101). — *Dacrymyces* Lapl. 1894. — Tul. 1872 (ASn V 15): 217 pl. 9 fs. 5–7; Pat. 1900: 31 f. 23; Bourd. & G. 1928: 70; Nannf. 1947 (SbT 41): 334 (*Dacryomitra*).

Dacryomitra glossoides Bref. 1888 (Germany), not ~ (Pers. per Fr.) Cost. & Duf.; fide McNabb 1965 (NZB 3): 45, 46 = *Calocera glossoides* [sensu McNabb]. — *Dacrymyces* Lapl. 1894. — Bref. 1888 U. 7: 162 pl. 11 fs. 1, 2; Bourd. & G. 1928: 70 (*Dacryomitra*). — Sensu Lloyd 1917 (LMW 5): 742 f. 1113 (*Dacryomitra*) = an apparently unnamed *Dacrymyces* sp., fide McNabb 1965 (NZB 3): 46; sensu Brasf. 1939 (Ll 1): 157 fs. 20–24 (*Dacryomitra*), also to be excluded.

M.—*Clavaria glossoides* Pers. sensu Cost. & Duf. 1891 (*Dacryomitra*). — McNabb 1965 (NZB 3): 45 f. 1k, in part (*Calocera*).

viscosa (Pers. per Fr.) Fr. 1827: Fr. 1828. — *Clavaria* Pers. 1794 (Germany) (d.n.) per Fr. 1821, not ~ (Pers.) Poir. 1811 (d.n.); *Merisma* Spreng. 1827. — Pers. 1797 C.: 185/53 pl. 1 f. 5 (*Clavaria*); Quél. 1872 (MMb II 5): 311 pl. 21 f. 5; P. Karst. 1882 (Bfi 37): 191; Bref. 1888 U. 7: 166 pl. 11 fs. 6–13; J. Schroet. 1888: 402; Dangeard 1895 (Bot 4): 142 fs. 8, 9; Burt 1929: 108 pl. 100 fig.; Bres. 1932 (Blm 23): pl. 1106; Y. Kobay. 1939 (SRT 4): 226 f. 6F, pl. 19 f. D; Poelt & Jahn 1964: pl. 25 fig.; McNabb 1965 (NZB 5): 39 f. 1e (*Calocera*).

Clavaria brachyorrhiza Scop. 1770: 150 pl. 1 f. 10 (Hungaria) (d.n.); fide Fr. 1828 E. 1: 233, & cf. Fr. 1838: 582 in obs. under *C. stricta*.

Clavaria flammea Schaeff. 1774 (Germany) (d.n.): fide Pers. 1797 C.: 185/53 & Fr. 1821: 486. — *Calocera* (Schaeff.) per Secr. 1833, Wallr. 1833, not ~ Fr. 1851. — Schaeff. 1774: 118 [pl. 174] (*Clavaria*); Bon. 1851: pl. 11 f. 237, in text on p. 153 as *C. viscosa*; Rolland 1910: pl. 104 f. 236; Bourd. & G. 1928: 73 (*Calocera*).

Ramaria gelatinosa Holmskj. 1799: 81 pl. [19] (Denmark) (d.n.), not (Coker) Corner 1950; fide Fr. 1821: 486.

? *Clavaria aurea* Humb. 1793: 115 (Germany) (d.n.) per Steud. 1824, not ~ Schaeff. per Fr. 1838; fide Pers. 1797 C. 185/53.

Incertae sedis

Guepinia brefeldii Lloyd 1923 (LMW 7): 1229 pl. 258 fs. 2556, 2557 (Italy) (102). **cornigera** G. Beck 1886 (VW 35): 363 (Austria).

[*Calocera*]

stricta Fr. 1838: 581 (Sweden) (103).

subsimplex (Bres. apud S. Schulz.) Britz. 1894, misapplied (104) — *Calocera cornea* var. Bres. apud S. Schulz. 1885 (H 24): 149 (Yugoslavia, Slavonia). — Sensu Britz. → *Calocera glossoides*.

CERINOMYCES G. W. Mart. (105)

1949 [1957 (Ta 6): 23]. — Holotype: *Cerinomyces pallidus* G. W. Mart.

M.—*Ceracea* Cragin sensu Pat. apud Pat. & Lag. 1893 [1958 (Ta 7): 174].

SPECIAL LITERATURE.—Martin, 1949; McNabb, 1964; Parmasto, 1961.

crustulina (Bourd. & G.) G. W. Mart. 1949 (105). — *Ceracea* Bourd. & G. 1924 (France). — Bourd. & G. 1928: 66 (*Ceracea*); G. W. Mart. 1949 (M 41): 85 f. 10; Jo. Erikss. 1958 (Sbu 161): 47 f. 5e-g; McNabb 1964 (NZB 2): 417 f. 1a (*Cerinomyces*). — Sensu Brasf. 1940, fide G. W. Mart. 1952 (Sla 193): 28 = *Cerinomyces pallidus* G. W. Mart. (extra-European).

DACRYMYCES Nees per Fr. (106, 107)

1821 [1958 (Ta 7): 176; 1963 (Ta 12): 166; & Donk 1964 (PNA 67): 1]. — *Dacryomyces* [!] Nees 1816 (d.n.). — Lectotype: *Dacrymyces stillatus* Nees.

? *Arrhytidia* B. & C. 1849 [1958 (Ta 7): 167] (108). — Monotype: *Arrhytidia flava* B. & C. *Septocolla* Bon. 1851 [1958 (Ta 7): 243]. — Monotype: *Septocolla adpressa* Bon.

M.—*Dacrymyces* Nees sensu Corda 1838 (restricted to imperfect states).

SPECIAL LITERATURE.—Bandoni, 1963b; Buller, 1922; Field, 1963; Gilbert, 1922; Goodwin, 1953; Hanna & Bulat, 1953; Kennedy, 1956, 1957, 1959a; Kobayasi, 1939b; Magasi, 1965a, 1965b; Massee, 1891; Neuhoﬀ, 1934; Raitviir, 1962.

Septocolla adpressa Bon. 1851: 152 pl. 12 f. 247 (Germany), not *Dacrymyces adpressus* Gogn. 1863; not *D. adpressus* Y. Kobay. 1939.

caesius Sommerf. 1826 (Norway): Fr. 1828. — Fr. 1828 E. 2: 36; Neuh. 1936 (ABS 281): 43, 50.

M.—*Tremella hyalina* Pers. sensu Quél. apud Bourd. & G. 1928: 67 (*Dacrymyces deliquescens* var.); cf. Neuh. 1936 (ABS 281): 50.

chrysocoma (Bull. per St-Am.) L. Tul. 1853. — *Peziza* Bull. 1787 (France) (d.n.) per St-Am. 1821: Fr. 1822; *Hymenoscyphus* S. F. Gray 1821, misapplied; *Bulgaria* Sommerf. 1826; *Calloria* Fr. 1849; *Orbilia* Sacc. 1889, misapplied; *Guepiniopsis* Brasf. 1938, misapplied. — Bull. 1787: pl. 376 f. 2; 1791 H.: 254; sensu Fr. 1822: 140 (*Peziza*): L. Tul. 1853 (ASn III 19): 211, 221, 'basidiferous state' only; Bourd. & G. 1928: 69 f. 45; Neuh. 1936 (ABS 281): 44, 52 f. 1b; Y. Kobay. 1939 (SRT 4): 126 f. 3I; Raitv. 1963 (TÜT 136): 204 f. 1: 6 (*Dacrymyces*); cf. Donk 1964 (PNA 67): 13. — Sensu Sow. 1798: pl. 152 (*Peziza*) & S. F. Gray (*Hymenoscyphus*) = *Orbilia* sp., fide Donk 1964 (PNA 67): 13-14; sensu Sacc. 1878

[Dacrymyces]

- (Mi 1): 429 (*Calloria*) = a discomycetous species; sensu Bref. → *Dacrymyces estonicus*; sensu Brasf. 1938 (AMN 20): 226 *tpl.* 4 *fs.* 86–89 (*Guepiniopsis*) = *Heterotextus* sp. (extra-European), fide Donk 1964 (PNA 67): 14.
- confluens** P. Karst. 1886 (Finland). — P. Karst. 1887 (Mfe 14): 83.
- corticoides** Ell. & Ev. 1885 (U.S.A., New Jersey) (108). — *Ceracea* Pat. 1900. *Ceracea aureofulva* Bres. 1906 (Germany) (108); fide McNabb in litt. — Bres. apud Krieg. 1906 (Am 4): 39; Bres. 1911 (Am 9): 425; Wakef. apud G. W. Mart. 1949 (M 41): 81, spores.
- M.—*Dacrymyces involutus* Schw. sensu auctt. nonn. (*Dacrymyces* & *Arrhytidia*); fide McNabb in litt.
- enatus** (B. & C. apud Berk.) Mass. 1891. — *Tremella* B. & C. apud Berk. 1873 (U.S.A., South Carolina); *Arrhytidia* Coker 1928. — Mass. 1891 (JM 6): 182 *pl.* 7 *fs.* 14, 15 (*Dacrymyces*); Coker 1928 (JMS 43): 237 *pl.* 48 *fs.* 1, 2; Brasf. 1938 (AMN 20): 214 *pl.* 1 *fs.* 12–14 (*Arrhytidia*); L. Kenn. 1959 (M 50): 900 (*Dacrymyces enatus* var.).
- Dacrymyces deliquescens* var. *castaneus* Bourd. 1932 (BmF 48): 206; fide L. Kenn. 1959 (M 50): 901.
- Dacrymyces gangliiformis* Brasf. 1940 (Ll 3): 105 *fs.* 6–10 (U.S.A., Massachusetts); fide L. Kenn. 1959 (M 50): 901.
- estonicus** Raitv. 1962 (Estonia) (111). — Raitv. 1962 (EAT 11⁸): 238 *fs.* 1, 2c.
- M.—*Peziza chrysocoma* Bull. sensu Bref. 1888 (*Dacrymyces*) (111); fide D. Reid in litt. — Bref. 1888 U. 7: 156 *pl.* 10 *fs.* 12–17 (*Dacrymyces*).
- fagicola** (Bourd. & G.) Pilát 1940 (114). — *Dacrymyces deliquescens* var. Bourd. & G. 1928: 68 (France).
- M.—*Dacrymyces succineus* Fr. sensu Boud. 1904–11: 93 *pl.* 181. — Tentatively identified with *D. fagicola*.
- fennicus** Lowy 1960 (Finland). — Lowy 1960 (Sy 14): 104 *f.* 1.
- Tremella guttata* Bon. 1851 (Germany). — Bon. 1851: 151 *pl.* 12 *f.* 243; 1864 (AbH 8): 119.
- lacrymalis** (Pers. per S. F. Gray) Sommerf. 1826, misapplied at least in part (112). — *Tremella* Pers. 1801 (Germany) (d.n.); *Gyraria* Pers. ex S. F. Gray 1821; *Tremella* Pers. 1822; ≡ [*Dacrymyces stillatus* var. “β. lutescens . . .” Fr. 1822, unnamed var.]; *Dacrymyces stillatus* var. *lutescens* Steud. 1824, Desm. 1828; ≡ *Dacrymyces lutescens* Neuha. 1934 (“Fr.-Bref.”) (typonym of preceding name), not ~ Bref. 1888 [fide Neuha. 1936 (ABS 28¹): 48 = *Dacrymyces lutescens* Bref.]. — Sensu Pers. 1804 I.p.: 24 *pl.* 10 *f.* 3 (*Tremella lacrymalis*); Neuha. 1934 (SZP 12): 82 (*Dacrymyces lutescens*). — Sensu originario [?], fide Nees 1816: 89 = *Dacrymyces stillatus*; sensu Sommerf., at least in part → *Dacrymyces tortus*; sensu Corda → *Dacrymyces stillatus*, arthrosporous state.
- ? *Tremella deliquescens* Bull. 1789: *pl.* 455 *f.* 3 & 1791 H.: 219 (France) (113); fide Donk 1964 (PNA 67): 6, nomen dubium & ambiguum. — *Tremella* Bull. per St-Am. 1821; *Dacrymyces* Duby 1830; *Calloria* Fr. 1849. — Sensu Fr. 1822: 230 (syn.) & Duby → *Dacrymyces stillatus* sensu originario; &c.

[Dacrymyces]

Dacrymyces lutescens Bref. 1888 U. 7: 152 *pl.* 10 *fs.* 1-3 (Germany) (115), not ~ Neuh. 1934. — Ssensu Neuh. 1936 (ABS 28¹): 43, 48 *f.* 11 ?

Dacrymyces cerebriformis Bref. 1888 U. 7: 153 *pl.* 10 *fs.* 4-8 (Germany) (116). — Ssensu Neuh. 1936 (ABS 28¹): 43, 50.

Dacrymyces harperi Bres. 1920 (Am 18): 53 (U.S.A.) (117).

laevis P. Karst. 1889 (BFI 48): 458 (Finland).

longisporus Bref. 1888 U. 7: 158 *pl.* 10 *fs.* 18, 19 (Germany) (118).

minor Peck 1878 (U.S.A., New York) (114). — Coker 1920 (JMS 35): 168 *pl.* 49 *fig.*, *pl.* 64 *fs.* 1, 2, in part; M. C. Fish. 1931 (PIa 38): 118 *tpl.* 1 *fs.* 1-3; Brasf. 1938 (AMN 20): 217 *tpl.* 1 *fs.* 18-22; L. Olive 1947 (M 39): 103; 1953 (BTC 80): 35 *fs.* 16, 17, spores (*Dacrymyces*); L. Kenn. 1959 (M 50): 908 (*Dacrymyces deliquescens* var.).

Dacrymyces gallaicus Losa 1942 (Spain). — Losa 1942 (AJM 2): 141 *tpl.* 8 *f.* 5. **nigricans** (Bourd. & G.) Pilát 1940, Ingelstr. 1940. — *Dacrymyces deliquescens* var. Bourd. & G. 1909 (France). — Bourd. & G. 1928: 67 (*Dacrymyces deliquescens* f.). *Ditiola nuda* B. & Br. 1848 (AM II 2): 267 *pl.* 9 *f.* 4 (England); fide McNabb 1965 (NZB 3): 49 = *Dacrymyces* sp. — *Dacryopsis* Mass. 1891; *Dacryomitra* Pat. 1900. — Mass. 1891 (JM 6): 182 *pl.* 7 *fs.* 25, 26 [cf. 1891 (G 20): 24] & 1892 B.F. 1: 69 *fs.* 5, 6 on p. 56, conidia doubtful (*Dacryopsis*).

Ditiola fagi Oud. 1898 (H 37): 313 (Netherlands); fide McNabb in litt.

Ditiola ulicis Plowr. 1899 (TBS 1): 55 *pl.* 2 *fs.* 2-6 (England); fide McNabb in litt. — *Dacryopsis* Sacc. & Syd. 1902.

Dacrymyces stipitatus (Bourd. & G.) Neuh. 1934, 1936; fide Bourd. 1932 (BmF 48): 206 = *Ditiola fagi*; fide McNabb in litt. — *Dacrymyces deliquescens* var. Bourd. & G. 1909 (France). — Bourd. & G. 1928: 68 (*Dacrymyces deliquescens* var.); Neuh. 1936 (ABS 28¹): 42, 47 *f.* 11 (*Dacrymyces*).

ovisporus Bref. 1888 (Germany) (119). — Bref. 1888 U. 7: 158 *pl.* 10 *fs.* 20, 21; Neuh. 1936 (ABS 28¹): 40, 44; Laurila 1939 (AVa 10⁴): 2; L. Kenn. 1959 (M 50): 899; Bandoni 1963 (M 55): 360 *f.* 1.

palmatus (Schw.) Bres. apud Höhn. 1904, Burt. 1921 (109). — *Tremella* Schw. 1832 (U.S.A., Pennsylvania), not ~ Hedw. f. 1798 (generic name n.v.p.; Chlorophyceae), not ~ Schum. per Pers. 1822; *Dacryopsis* Lloyd 1920. — Burt 1921 (AMo 8): 379 *f.* 2, *pl.* 3 *f.* 2; Bourd. & G. 1928: 69; Burt 1929: 108 *pl.* 100 *figs.*; Bres. 1932 (BIm 23): *pl.* 1126 *f.* 2; Neuh. 1936 (ABS 28¹): 44; Brasf. 1938 (AMN 20): 218 *tpl.* 2 *fs.* 42-45; Y. Kobay. 1939 (SRT 4): 117 *pl.* 11 *f.* B; L. Kenn. 1956 (M 48): 318 *fs.* 1-3; 1959 (M 50): 907; Raitv. 1963 (TÜT 136): 205 *f.* 1: 3 (*Dacrymyces*).

Dacrymyces chrysosperma B. & C. apud Berk. 1873 (U.S.A., Massachusetts) (109); fide Coker 1920 (JMS 35): 163, 164 = *Dacrymyces aurantius* [sensu Farl.]; fide Burt 1921 (AMo 8): 379, 380.

Dacrymyces tremelloides P. Karst. 1882 (BFI 37): 241 (Finland); fide L. Kenn. 1959 (M 50): 907 & McNabb in litt.

[*Dacrymyces*]

Dacrymyces multiseptatus G. Beck 1884: 126 *pl. 1 f. 5* (n.v.) & 1886 (VW 35): 363 (Austria); fide Höhn. 1904 (ÖbZ 54): 425 & Bres. apud Höhn. 1905 (Am 3): 188.

? *Tremella pinicola* Britz. 1893 (BCb 54): 104 [*pl. 748 f. 19*] (Germany), wrong spores, not ~ Peck 1886; = *Tremella britzelmayri* Sacc. & Syd. 1899 (110).

Dacrymyces flabellum Ell. & Ev. 1894 (PAP): 324 ("*flabella*") (U.S.A., Washington); fide L. Kenn. 1959 (M 50): 907.

Dacryomitra ramosa Wehmeyer 1935 (PMi 20): 249 *f. 3* (Canada, Nova Scotia); fide Brasf. 1938 (AMN 20): 218 & L. Kenn. 1956 (M 48): 311, 318; 1959 (M 50): 893, 907 ("phase").

M.—*Dacrymyces contortus* Ces. sensu Ces. in Rab. 1855 Kl.: No. 1984, in part ("a").

M.—*Tremella aurantia* Schw. sensu Farl. 1883; fide Burt 1921 (AMo 8): 379. — Pat. 1893 (JBM 7): 344 (*Guepiniopsis*); Coker 1920 (JMS 35): 163 *pl. 23 f. 10, pl. 48, pl. 63 fs. 6, 7*; Lloyd 1922 (LMW 7): 1132; Y. Kobay. 1939 (SRT 4): 118 *pl. 11 f. E* (*Dacrymyces*).

Dacryopinax parmastensis Raitv. 1964 (EAT 13¹): 31 *f. 3* (U.S.S.R., Transcaucasia). — McNabb 1965 (NZB 3): 71 suggests from the description that this may belong to *Dacrymyces* subg. *Turbinaster* Y. Kobay.

rubiformis (Fr. per Pers.) Neuh. 1931, 1936 (109). — *Naematelia* Fr. 1818 (Sweden) (d.n.); *Tremella* (Fr.) per Pers. 1822; *Naematelia* Fr. 1822. — Neuh. 1934 (SZP 12): 81; 1936 (ABS 28¹): 43, 45 *f. 1c* (*Dacrymyces*). — Cf. L. Kenn. 1959 (M 50): 907, perhaps *Dacrymyces palmatus*. — Sensu Bourd. & G. → *Tremella encephala*.

saccharinus Sacc. & Trav. 1910 (Germany). — *Tremella spiculosa* var. *saccharina* A. & S. sensu Bon. 1851: 151 *pl. 12 f. 245* (*Tremella*).

stillatus Nees per Fr. 1822 (120). — *Dacrymyces stillatus* Nees 1816 (Germany) (d.n.); *Calloria* Fr. 1849. — Nees 1816: 89 *pl. 7 f. 90*; 1817: 25; Fr. 1822: 230, exclusive of var.? (*Dacrymyces*); cf. Donk 1964 (PNA 67): 2. — Sensu Corda → *Dacrymyces stillatus*, arthrosporous state; sensu L. Tul. → *Dacrymyces* sp., separately listed below; sensu Berk. 1860: 291 *pl. 18 f. 8* & Fr. 1874: 699 = *Dacrymyces* spp. [mixtum compositum], fide Donk 1964 (PNA 67): 5; sensu P. Karst. 1882 (BFI 37): 202 (= *D. abietinus* sensu P. Karst.) → *Dacrymyces* sp., separately listed below; sensu Bref. → *Dacrymyces* sp., separately listed below; sensu Bourd. & G. → *Dacrymyces* sp., separately listed below.

Tremella abietina Pers. 1796 O. 1: 78 (Germany) (d.n.); fide Nees 1816: 89 & Fr. 1822: 230; fide Neuh. 1936 (ABS 28¹): 38, 44 = *Dacrymyces deliquescens* [sensu Neuh.]. — *Tremella* Pers. per Pers. 1822; *Dacrymyces* J. Schroet. 1888, Wettst. 1888, P. Karst. 1889, misapplied, not ~ Lapl. 1894; cf. Donk 1964 (PNA 67): 7. — Sensu J. Schroet. = *Dacrymyces* spp. [mixtum compositum], fide Donk 1964 (PNA 67): 8–9; sensu P. Karst. 1889 (BFI 48): 459, originally *D. stillatus* sensu P. Karst. 1882 (BFI 37): 202 → undetermined *Dacrymyces* sp., separately listed below; sensu Coker, L. Kenn., at least in part = *Dacrymyces* sp., cf. Donk 1964 (PNA 67): 9; &c.

[Dacrymyces]

Tremella sepincola Willd. 1788 (MB 2 / 4. Stück): 18 (Germany) (d.n.); fide Fr. 1822: 230 ("ex Rebut. "). — *Tremella* Willd. per Pollini 1824; *Dacrymyces* Bon. 1864, misapplied. — Sensus Bon. 1864 (AbH 8): 116 = *Cylindrocolla urticae* (Pers. per Méral) Bon.

? *Tremella punctiformis* Schrank 1789: 561 (Germany) (d.n.); fide Fr. 1832 Ind.: 192. — *Tremella* Schrank per Opiz 1823.

? *Tremella miliaria* Schrank 1789: 563 (Germany) (d.n.); fide Fr. 1822: 230.

Dacrymyces ellisii Coker 1920 (U.S.A., North Carolina) (121); fide L. Olive 1958 (BTC 85): 108 = *Dacrymyces deliquescens* [sensu L. Olive]. — Coker 1920 (JMS 35): 167 pl. 23 f. 11, pl. 50 f. 4, pl. 63 f. 8.

M.—*Tremella deliquescens* Bull. sensu Fr. 1822 (syn.) & Duby 1830, name taken up to replace *Dacrymyces stillatus* Nees, Fr. 1822: 230 (original sense of Nees); cf. Donk 1964 (PNA 67): 6. — L. Tul. 1853 (ASn III 19): 211 pl. 12 fs. 13–19, pl. 13; Bref. 1888 U. 7: 141 pl. 9; Dangeard 1895 (Bot 4): 136 fs. 5–7; Buller 1922 (TBS 7): 230; 1922 R. 2: 171, 178 fs. 59, 60; Neuhaus 1936 (ABS 28¹): 40, 44 f. 1h; Y. Kobay. 1939 (SRT 4): 114 f. 3A, pl. 9 f. E, pl. 11 f. F; ? L. Olive 1958 (BTC 85): 107, no arthrospores; Poelt & Jahn 1964: pl. 25 fig. (*Dacrymyces*).

Hormomyces abietinus P. Karst. 1890 (H 29): 271 (Finland) (nom. anam.); fide L. Kenn. 1959 (M 50): 910 = *Dacrymyces deliquescens* var. *deliquescens* [sensu L. Kenn.]. — *Dacrymyces* Lapl. 1894, not ~ (Pers. per Pers.) J. Schroet. 1888.

M.—*Dacrymyces stillatus* Nees sensu Corda 1838 I. 2: 32 pl. 14 f. 114; restricted to arthrosporous state, cf. Donk 1964 (PNA 67): 2. — Schnizl. 1851 (StP Hfte 21–22): 19 pl. 10; Bon. 1851: 149 pl. 12 f. 242, incl. basidiospores cf. f. 242c; 1864 (AbH 8): 115.

M.—*Tremella lacrymalis* Pers. sensu Corda 1838 I. 2: 32 pl. 14 f. 115 (*Dacrymyces*); used for arthrosporous state.

M.—*Tremella torta* Willd. sensu Bon. 1894 (AbH 8): 116 (*Dacrymyces*); used for arthrosporous state, fide Donk 1964 (PNA 67): 11.

stillatus Nees sensu L. Tul. 1853 (122). — L. Tul. 1853 (ASn III 19): 219; cf. Donk 1964 (PNA 67): 4.

? *Dacrymyces tulasnei* Neuhaus 1936 (ABS 28¹): 43, 51 f. 1e (n.v.p.), citing *D. stillatus* sensu L. Tul. & sensu Bourd. & G. as synonyms.

stillatus Nees sensu P. Karst. 1882 (BFi 37): 202. — *Tremella abietinus* Pers. sensu P. Karst. 1889 (BFi 48): 459 (*Dacrymyces*).

stillatus Nees sensu Bref. 1888 U. 7: 155 pl. 10 fs. 9–11 (122); cf. Donk 1964 (PNA 67): 6.

stillatus Nees sensu Bourd. & G. 1928. — Bourd. & G. 1928: 68 f. 44. — Fide Neuhaus 1936 (ABS 28¹): 51 = *Dacrymyces tulasnei*, but cf. Donk 1964 (PNA 67): 6.

stillatus Nees sensu Bres. 1932 (Blm 23): pl. 1127 f. 2.

Septocolla stipitata Bon. 1864 (AbH 8): 117 (Germany), not *Dacrymyces stipitatus* (Bourd. & G.) Neuhaus 1936.

[*Dacrymyces*]

tortus (Willd.) per Fr. 1828; fide Neuh. 1936 (ABS 28¹): 45, 47 ("Fr.") = *Dacrymyces punctiformis* + *D. romellii*. — *Tremella* Willd. 1788 (Germany) (d.n.); *Tremella* (Willd. per Fr.) B. & Br. 1848; *Guepiniopsis* Pat. 1883, misapplied (125); ≡ *Dacrymyces contortus* Ces. 1855, misapplied (125); *Guepinia* Bary 1884, misapplied. — Sensus Fr. 1828 E. 2: 36 (*Dacrymyces*); cf. Donk 1964 (PNA 67): 11. — Sensus Berk. 1860: 288 = *Dacrymyces cerebriiformis*, fide Neuh. 1936 (ABS 28¹): 50; sensu Bon. → *Dacrymyces stillatus*, arthrosporous state; sensu Doass. & Pat. → *Guepiniopsis buccina*; sensu Brasf. 1938 (AMN 20): 225 *tpl.* 4 *fs.* 72–79 (*Guepiniopsis*) = *Dacrymyces* sp., fide L. Olive 1954 (BTC 81): 334 = *Guepiniopsis minuta* L. Olive, extra-European; *Dacrymyces contortus* sensu Ces. in part ("b") → *Guepiniopsis buccina*.

Dacrymyces punctiformis Neuh. 1934, 1936 (Sweden); fide Donk 1964 (PNA 67): 11. — Neuh. 1934 (SZP 12): 81; 1936 (ABS 28¹): 41, 45 *f.* 1*d.*, *pl.* 7; Brasf. 1938 (AMN 20): 219 *tpl.* 1 *fs.* 15–17; L. Olive 1946 (M 38): 542; Malenç. 1954 (BmF 70): 125; L. Kenn. 1959 (M 50): 904.

Dacrymyces romellii Neuh. 1934, 1936 (Sweden); fide Nannf. apud L. Kenn. 1959 (M 50): 888, 906 = *Dacrymyces punctiformis*; fide Donk 1964 (PNA 67): 11. — Neuh. 1934 (SZP 12): 82; 1936 (ABS 28¹): 42, 47 *f.* 1*g.*, *pl.* 4 *f.* B.

M.—*Tremella lacrymalis* Pers. sensu Sommerf. 1826: 308 (*Dacrymyces*); fide Fr. 1828 E. 2: 36.

? M.—*Tremella hyalina* Pers. sensu Lloyd 1919 (*Dacrymyces*). — Lloyd 1919 (LMW 5): 828 *fs.* 1385–1387; Overh. 1922 (BTC 49): 166 *fs.* 5–8 (*Dacrymyces*).

DACRYONAEMA Nannf.

1947 [1958 (Ta 7): 177]. — Holotype: *Sphaeronaema rufum* Fr.

SPECIAL LITERATURE.—Nannfeldt, 1947.

rufum (Fr. per Fr.) Nannf. 1947. — *Sphaeronema* Fr. 1818 (Sweden) (d.n.) per Fr. 1823. — Nannf. 1947 (SbT 41): 336 *fs.* 1–3, *pl.* 1.

DITIOLA Fr.

1822 [1958 (Ta 7): 177]. — Lectotype: *Helotium radiculatum* A. & S.

SPECIAL LITERATURE.—Harmsen, 1954; Kennedy, 1964; Lindau, 1894.

radicata (A. & S.) per Fr. 1822 (123). — *Helotium* A. & S. 1805 (Germany) (d.n.); *Guepinia* (A. & S. per Fr.) Cost. & Duf. 1891, misapplied; *Dacrymyces* Donk 1931, in part; ≡ *Peziza turbo* Pers. 1822 (by lecto-typification). — A. & S. 1805: 348 *pl.* 8 *f.* 5; Corda 1838 I. 2: 33 *pl.* 14 *f.* 119, with serious errors; P. Karst. 1882

[*Ditiola*]

(Bfi 37): 303; Lindau 1894 (H 33): 234 *pl.* 13 (*Ditiola*); Bourd. & G. 1928: 68 (*Dacrymyces deliquescens* var. *Ditiola radicata*); Bres. 1932 (BIm 23): *pl.* 1128 *f.* 2 (*Ditiola*); Neuh. 1936 (ABS 28¹): 42, 48 *f.* 1a (*Dacrymyces*); L. Harmsen 1954 (BT 51): 121, 123 *fs.* 7-11 (*Ditiola*); cf. Donk 1964 (PNA 67): 16. — Ssensu Quél. → *Femsjonia pezizaeformis*.

? *Helvella lentiformis* Scop. 1772: 481 (Yugoslavia, Carniola) (d.n.); fide Fr. 1822: 170. — *Ditiola* (Scop.) per Wettst. 1885, Sacc. 1916.

Tremella peziza Pers. 1801: 628 (Germany) (d.n.); fide Fr. 1822: 170 & Donk 1964 (PNA 67): 15.

Tubercularia pini Schum. 1803: 183 (Denmark) (d.n.); fide Fr. 1822: 170.

Tubercularia flavescens Reb. 1804: 362 *pl.* 3 *f.* 15 (Germany) (d.n.); fide Fr. 1822: 170 & Donk 1964 (PNA 67): 15.

? *Leotia tuberculata* Hornem. 1808 (Fd 8 / F. 23): 8 *pl.* 1378 *f.* 2 (Denmark) (d.n.); fide Fr. 1822: 170. — In my opinion a very doubtful synonym.

M.—*Guepinia peziza* L. Tul. sensu J. Schroet. 1888: 401.

FEMSJONIA Fr.

1849 [1958 (Ta 7): 196]. — Monotype: *Femsjonia luteo-alba* Fr.

M.—*Guepinia* Fr. sensu Bref. 1888: 160, in part.

SPECIAL LITERATURE.—Martin, 1952b; McNabb, 1965e.

pezizaeformis (Lév.) P. Karst. 1876. — *Exidia* Lév. 1848 (France). — P. Karst. 1876 (Bfi 25): 352; Bourd. & G. 1928: 71; Bourd. 1932 (BmF 48): 206-207, in obs.; L. Olive 1947 (M 39): 105 *f.* 14; McNabb 1965 (NZB 3): 224 *f.* 1a (*Femsjonia*).

? *Cyphella friesii* Weinm. 1836: 523 ("Frisei") (U.S.S.R., Russia) (124), not ~ Crouan 1867, not ~ Quél. 1875; ≡ *Guepinia cyphella* Fr. 1838: 566.

Femsjonia luteo-alba Fr. 1849 (Sweden); fide P. Karst. 1876 (Bfi 25): 353 & McNabb 1965 (NZB 3): 224, 226. — *Ditiola* Quél. 1886; *Guepinia* Lloyd 1920. — Fr. 1863 M. 2: 283; Lloyd 1921 (LMW 6): 1053 *pl.* 180 *fs.* 1958, 1959; Buller 1922 R. 2: 163 *f.* 58; Bourd. & G. 1928: 71 *f.* 46; Bres. 1932 (BIm 23): *pl.* 1129; Bourd. 1932 (BmF 48): 206; Brasf. 1938 (AMN 20): 227 *tpl.* 4 *fs.* 90-97; Y. Kobay. 1939 (SRT 4): 216 *f.* 1, *pl.* 19 *fs.* A, F; Overh. 1940 (M 32): 261 *f.* 12; Raitv. 1963 (TÜT 136): 207 *f.* 1: 5 (*Femsjonia*).

Ditiola conformis P. Karst. 1871 (Finland); fide P. Karst. 1876 (Bfi 25): 353 & McNabb 1965 (NZB 3): 224, 226; fide Lloyd 1921 (LMW 6): 990 & 1921 (LMW 6): 1053 = *F. luteo-alba*. — *Dacrymyces* Neuh. 1936. — P. Karst. 1871 (NfF 11): 223 [1871 (H 10): 60]; 1889 I. 3: 10 *pl.* 6 *f.* 80; Burt 1921 (AMo 8): 386 (*Ditiola*); Neuh. 1936 (ABS 28¹): 44 (*Dacrymyces*).

Guepinia femsjoniana J.-Ols. apud Bref. 1888 (Germany); fide J.-Ols. apud Bref. 1888 U. 7: 161 = *Femsjonia luteo-alba*. — Bref. 1888 U. 7: 161 *pl.* 11 *fs.* 3-5.

[Femsjonia]

Dacrymyces mesentericus P. Karst. 1889 (Bfi 48): 459 (Finland); fide McNabb (NZB 3): 224, 226.

Dacrymyces radicellatus P. Karst. 1890 (H 29): 178 (Finland); fide McNabb 1965 (NZB 3): 224, 226.

M.—*Helotium radicum* A. & S. sensu Quél. 1888: 21 (*Ditiola*), in part; fide Bourd. & G. 1928: 71 = *Femsjonia luteo-alba*.

M.—*Peziza radiculata* Sow. sensu G. W. Mart. 1952 (SIa 19^a): 36 (*Femsjonia*); fide G. W. Mart. 1952 (M 44): 580 = *Femsjonia luteo-alba*.

GUEPINIOPSIS Pat.

1883 [1958 (Ta 7): 199]. — Monotype: "*Guepiniopsis tortus* Pat."

M.—*Guepinia* Fr. sensu Bref., in part, em. Ulbrich.

SPECIAL LITERATURE.—McNabb, 1965c.

buccina (Pers. per Pers.) L. Kenn. 1959; fide Dennis 1952 (KB 12): 302 = *Guepinia peziza*. — *Peziza* Pers. 1801 (Germany) (d.n.) per Pers. 1822: Fr. 1822; *Helotium* Fr. 1849, misapplied; *Guepinia* Sacc. 1873; *Phialea* Quél. 1883, misapplied. — Donk 1964 (PNA 67): 16, notes; McNabb 1965 (NZB 3): 161 fs, 1, 2 (*Guepiniopsis*). — Sensu Fr. 1849 = presumably a discomycetous species (undetermined); sensu Quél. = a discomycetous species (undetermined).

Peziza merulina Pers. 1822 (France); fide Donk 1964 (PNA 67): 17. — *Guepinia* Quél. 1884; *Guepiniopsis* Pat. 1887 (nom. nud.: n.v.p.), 1889; *Ditiola* Rea 1922. — Quél. 1884 (Crf 12): 507 (*Guepinia*); Pat. 1900: 30 f. 22 at left; Bourd. & G. 1928: 70; Y. Kobay. 1939 (SRT 4): 110 f. 2A, pl. 9 f. C (*Guepiniopsis*).

Guepinia peziza L. Tul. 1853 (France). — *Guepiniopsis* Pat. 1889 (not accepted: n.v.p.). — Tul. 1872 (ASn V 15): 218, 233 pl. 9 fs. 1–4 (*Guepinia*). — Sensu J. Schroet. → *Ditiola radicata*.

Guepinia tubiformis Fuck. 1870 (Jna 23–24): 30 (Germany); fide McNabb 1965 (NZB 3): 161, 162.

Guepinia cochlearis Quél. 1875 (MMb II 5): 547 (France); fide Quél. 1884 (Crf 12): 507 = *Guepinia merulina*.

Peziza exarata Berk. 1875 (G 3): 160 (U.S.A., South Carolina); fide McNabb 1965 (NZB 3): 161, 162. — *Phialea* Sacc. 1889.

Guepinia crenata Lloyd 1922 (LMW 7): 1152 pl. 214 f. 2241 (Ecuador); fide McNabb 1965 (NZB 3): 162.

M.—*Dacrymyces contortus* Ces. sensu Ces. in Rab. 1855 Kl.: No. 1984, in part ("b") (125); fide Donk 1964 (PNA 67): 12.

M.—*Tremella lutescens* Pers. sensu Quél. 1872 (MMb II 5): 315; 1873 (MMb II 5): pl. 20 f. 6 → *Guepinia cochlearis*.

M.—*Tremella torta* Willd. sensu Doass. & Pat. 1883 (Rm 5): 96 (125); fide Quél. 1884 (Crf 12): 507 & Donk 1958 (Ta 7): 199 = *Guepinia/Guepiniopsis merulina*. — Pat. 1883 T.a. 1: 28 f. 62; L. Olive 1953 (BTC 80): 38 fs. 21, 24–28; Domański & al. 1960 (Mob 10): 189 f. 14 (*Guepiniopsis*); cf. Donk 1964 (PNA 67): 12–13.

EXOBASIDIALES Lindau 1897

Exobasidiaceae J. Schroet. 1888.

EXOBASIDIUM Woronin (126-128)

1867 [1956 (Re 4): 116]. — Monotype: *Fusidium vaccinii* Fuck.

Arcticomyces Savile 1959 [1963 (Ta 12): 156] (141). — Monotype: *Exobasidium warmingii* Rostr.

SPECIAL LITERATURE.—On *Ericaceae*: Brefeld, 1888c; Burt, 1915; Cavara, 1899; Eftimiu & Kharbush, 1927; Fockeu, 1894; Fuckel, 1861; Göttgens, 1960; Graafland, 1953, 1960; Juel, 1912; Kharbush, 1929; Laubert, 1925, 1932; Magnus, 1897; Maire, 1916; Naumann, 1910; Petri, 1907; Raciborski, 1909; Richards, 1896; Sadebeck, 1886; Savile, 1959; Sundström, 1960, 1964; Thomas, 1897; Wakker, 1892; Woronichin, 1926; Woronin, 1867; Zellner, 1913. — On *Lauraceae*: Baccarini, 1913; Baldini, 1886; Geyler, 1874; von Tubeuf, 1913. — On *Anacardiaceae*: Maire, 1917. — On *Saxifragaceae*: Thomas, 1889.

On Ericaceae

aequale Sacc. 1917 (NGi II 24): 33 (Italy). — Cf. *Exobasidium vaccinii-uliginosi*.
angustisporum Linder 1947 (Canada) (129). — Linder 1947 (BnC 97): 271 fs. 5d, e, pl. 18 f. B.

Exobasidium vaccinii-myrtilli (Fuck.) Juel form "d" Juel 1912 (SbT 6): 365.

cassiopes Peck 1892 (U.S.A., Washington). — Nannf. 1958 (LNF 51-52): 28 No. 2556.

Exobasidium vaccinii-myrtilli (Fuck.) Juel. form "f" Juel 1912 (SbT 6): 365 pl. 7 f. 3.

caucasicum Woronich. 1920 (U.S.S.R., Transcaucasia) (130). — Woronich. 1920 (MTi 51) (n.v.) [cf. Woronov 1923 (TtS II 3): 182]; 1926.

discoideum J. B. Ell. 1874 (BTC 5): 46 (U.S.A., New Jersey) (130, 131). — Senu P. Magn. 1897 (FnZ 6): 435; 1900 (AHP 16): 538 pl. 18 fs. 1-4; Rac. 1909 (BCr 3²): 387 fs. 1, 2. — Senu Petri → *E. japonicum*.

Exobasidium discoideum var. *horvathianum* F. Thomas 1897 (U.S.S.R., Caucasia); fide P. Magn. 1897 (FnZ 6): 435. — F. Thomas 1897 (FnZ 6): 305 fs. 1-3.

dubium Rac. 1909 (Kos 34): 1172 & 1910 M.p.: No. 50 [cf. Woronich. 1926 (Ph 16): 296] (Poland) (130, 132). — Rac. 1909 (BCr 3²): 388 (*Exobasidium* sp., producing "Flecken").

Exobasidium magnusii Woronich. 1913 (n.v.) (130); fide Siemaszko 1923 (n.v.) & apud Trott. 1926 (SF 24): 1325. — Woronich. 1913 (MTi 28): 18 pl. 1 f. 2 (n.v.) [cf. Woronov 1923 (TtS II 3): 182]; Savile 1959 (CJB 37): 650, in obs.

Exobasidium sp. P. Magn. 1900 (Caucasia). — P. Magn. 1900 (AHP 16): 540 pl. 18 f. 5.

[*Exobasidium*]

[**japonicum** Shirai, see Index.—An alien.]

karstenii Sacc. & Trott. 1912 (135). — \equiv *Exobasidium andromedae* P. Karst. 1878 (nom. nud.), 1881 (Finland), not \sim Peck 1873; \equiv *Exobasidium karstenii* Lind 1913 (synonym). — Maire 1902 (BmF 18, S.): 97 pl. 2 fs. 21–23; P. Magn. 1905: 141 (*Exobasidium andromedae*).

M.—*Exobasidium andromedae* Peck (135) sensu Mig. 1910–1: 30.

ledi P. Karst. 1878 (Finland). — Juel 1912 (SbT 6): 368 f. E.

myrtilli Siegm. 1870 (n.v.) [cf. Lind 1913: 350] (Germany) (136), not \sim (Thüm. ex P. Karst.) P. Karst. 1889.

Exobasidium myrtilli (Thüm. ex P. Karst.) P. Karst. 1889, not \sim Siegm. 1870 (n.v.). — *Exobasidium vaccinii* forma Thüm. 1873 (nom. nud.) (Czechoslovakia), not \sim Thüm. 1875; *Exobasidium vaccinii* subsp. “*Ex. Myrtilli*” (Thüm.) ex P. Karst. 1882.

Exobasidium vaccinii-myrtilli (Fuck.) Juel 1912; fide Juel 1912 (SbT 6): 361, 365 [type distribution of *E. myrtilli* (Thüm. ex P. Karst.) P. Karst. included]. — *Exobasidium vaccinii* forma Fuck. 1870 (Germany). — Juel 1912 (SbT 6): 364 f. B, pl. 7 f. 3, in part; Eftimiu & Kharbush 1927 (RPv 14): 63, 80 fs. 2, 4 tplate fs. 22–28 (“*Myrtilli*”).

M.—*Fusidium vaccinii* Fuck. sensu Fuck. 1861 (BZ 19): 251, in part, as to fungus on *Vaccinium myrtillus*. — Sadebeck 1886 (BCb 25): 289 (*Exobasidium*).

oxycocci Rostr. 1906 (Denmark) (137). — *Exobasidium* Rostr. 1885 (nom. prov.). — Shear 1907 (BPI 110): 35 pl. 7 fs. C, D; Juel 1912 (SbT 6): 365; Lind 1913: 352 pl. 6 fs. 74, 75; Shear & al. 1931 (TUS 258): 11, 41 pl. 1 f. C; Poelt & Jahn 1964: pl. 30 fig.

rhododendri (Fuck.) Cramer apud Geyler 1874; Cramer 1875 (130, 133), not \sim Quél. 1886; — *Exobasidium vaccinii* forma Fuck. 1873 (Switzerland). — Fuck. 1873 (Jna 27–28): 7 (*Exobasidium vaccinii* f.); Geyler in Rab. 1875 F.e.: No. 1910; Eftimiu & Kharbush 1927 (RPv 14): 63, 79 f. 8, tplate fs. 29–40; Laubert 1932: 290 fs. 75, 76; Poelt & Jahn 1964: pl. 30 fig. (*Exobasidium*).

Exobasidium rhododendri Quél. 1886 (France) (130), not \sim (Fuck.) Cramer apud Geyler 1874. — Quél. 1888 (Crf 16): 589.

M.—*Fusidium vaccinii* Fuck. sensu Cavara 1890 (*Exobasidium*), in part, as to fungus on *Rhododendron*. — Cavara 1899 (Mal 13): 124–136 pl. 5 (*Exobasidium*).

unedonis Maire 1916 (Algeria). — Maire 1916 (BfA 1): 123 fs. 1, 2 pl. 8.

uvae-ursi (Maire) Juel 1912. — *Exobasidium andromedae* P. Karst. forma Maire 1907 (BbF 55): clviii (France). — Juel 1912 (SbT 6): 366 f. C, pl. 7 f. 4 (*Exobasidium*).

vaccinii (Fuck.) Woronin 1867 (136, 138). — *Fusidium vaccinii* Fuck. 1861 (Germany), in part. — Woronin 1867 (VnF 4): 397, 413 pls. 1–3; Wakker 1892 (JwB 24): 501 pl. 21 fs. 33–36, galls; Shear 1907 (BPI 110): 36 pl. 7 fs. A, B; Juel 1912 (SbT 6): 361 f. A; Burt 1915 (AMo 2): 649 pl. 21, in part; Shear & al. 1931 (TUS 258): 11, 41 pl. 1 f. D, pl. 3 fs. B, C; S. Ito 1955: 54 f. 42; Savile 1959 (CJB 37): 646 f. 1, in part; Poelt & Jahn 1964: pl. 30 fig.

[Exobasidium]

- Exobasidium cassandrae* Peck 1878 (RNS 29); 46; fide Juel 1912 (SbT 6): 362 & Nannf. 1958 (LNF 51-52): 32 No. 2567.
- vaccinii-uliginosi** Boud. apud Boud. & E. Fisch. 1895 (Switzerland). — Lagerh. in Briosi & Cav. 1896 F.p.: No. 261 *fig.*; Juel 1912 (SbT 6): 367 *f. D, pl. 7 f. 5*; Eftimiu & Kharbush 1927 (RPv 14): 63, 80 *fs. 3, 5, 9, tplate fs. 14-22* ("uliginosi"); Linder 1947 (BnC 97): 273; S. Ito 1955: 53 *f. 41*; Savile 1959 (CJB 37): 652 *f. 9*.

On other families

- citri** Siemaszko 1915 (U.S.S.R., Caucasia). — Siemaszko 1915 (MMR 1³): 30 *fs. 5-10* (n.v.). — On *Citrus* (Rutaceae).
- lauri** Geyler 1874 (Canary Islands) (140). — Geyler 1874 (BZ 32): 244 ("Lawii"), 321 *pl. 7*; Baldini, 1886, galls; Baccarini, 1913; von Tubeuf, 1913. — On *Laurus* spp. (Lauraceae).
- Clavaria lauri* Brot. per Fr. 1821 (140). — *Clavaria* Brot. 1804: 475 (Portugal) (d.n.); *Calocera* (Brot. per Fr.) Fr. 1832.
- patavinum** D. Sacc. 1897 (Italy). — D. Sacc. 1898 (Mal 12): 204 *pl. 7 f. 2*. — On *Ilex aquifolia* (Aquifoliaceae). — Incertae sedis.
- warmingii** Rostr. 1888 (Greenland) (141). — *Arcticomyces* Savile 1959. — F. Thomas 1889 (VW 39^{Sber}): 86; Savile 1959 (CJB 37): 984 *fs. 4-11*. — On *Saxifraga* spp. (Saxifragaceae).

Notes

SEPTOBASIDIALES

Septobasidium

(1). Caldesi himself listed *Thelephora orbicularis* Dur. & Lév. as synonym of his *Hypochnus michelianus*. The former name was validly published, although the protologue consisted only of an illustration (with legend): the description was never published. Since there is no reasonable doubt that the two names are synonyms, the correct name for the species would seem to be **Septobasidium orbiculare** (Dur. & Lév.) Donk, *comb. nov.*; basionym, *Thelephora orbicularis* (Dur. & Lév. in Dur., Fl. Algér., Crypt. *pl. 33 f. 7*. ?1846).

(2). Saccardo was quite correct when he made the recombination *Septobasidium quercinum*, basionym, *Hypochnus quercinus* Bagl. Because of the pre-existence of the name *Corticium quercinum* (Pers. per Fr.) Fr. [= S. F. Gray] Fries had to change the specific epithet when he transferred the species to *Corticium*; he therefore introduced the name *Corticium bagliettoanum*. No such obstacle existed when the species was transferred to *Septobasidium*; hence, instead of the recombination of 'bagliettoanum', a recombination of the earlier epithet was required.

TREMELLALES
AURICULARIINEAE

Achroomyces

(3). The name *Achroomyces* is not generally accepted. Those authors who prefer to use the name *Platygløea* instead do so, it would appear, for two reasons. The first is that they are in doubt as to the correct interpretation of *Achroomyces tumidus*, the type species of the name *Achroomyces*. The second is that considerable reluctance must be overcome before exchanging the currently used denomination *Platygløea* for *Achroomyces*. Nevertheless, several European authors who know *Achroomyces disciformis* and have studied it from various points of view (von Höhnelt, 1904; Neuhoft, 1924: 257; Donk, 1958b: 165) have been convinced that this species is in any case congeneric with *A. tumidus* and most probable even conspecific, the only difference being the substratum, which is *Tilia* in *A. disciformis* and *Betula* in *A. tumidus*. Since *A. disciformis* is a fairly common species in some parts of Europe and has been consistently reported from *Tilia*, it would seem as though Bonorden erred in his naming of the host.

The earlier authors who published microscopic details (Bonorden; Riess) were not aware that they were dealing with an auriculariaceous fungus, so that the basidia were not only not correctly rendered but they were also even misinterpreted; not until Brefeld's studies was the true nature of the basidia brought to light. It is von Höhnelt's merit to have recognized the fungus in the various disguises in which it was published. The fact is that even without knowledge of microscopic details only a tolerable description is needed to characterize *A. disciformis* sufficiently for recognition.

(4). *Platygløea* or, rather, *Achroomyces* in its current delimitation is a purely artificial genus. It is used to stow away species with effused, waxy to gelatinous fruitbodies, in so far as they cannot be accommodated in some smaller genera, such as *Helicogloea* (13), *Kriegeria*, and the extra-European *Patouillardina* Bres. apud J. Rick, defined by additional particularities. Even so, allowances must be made in order to retain certain species within this broadly conceived genus. The fruitbody of *Achroomyces disciformis* for instance is not really effused ('resupinate') but erumpent and it remains cushion-shaped throughout its development. There can be no doubt that the species still assigned to the genus differ in their alliances. These have not yet been worked out. Pending further studies little can be done except to retain the genus in its artificial sense. I have refrained from making new combinations for the intervening period; this will explain the apparently indiscriminate use in the check list of the two generic names *Achroomyces* and *Platygløea*.

A preliminary survey of the genus on a world-wide basis was published by Bandoni (1957a, as *Platygløea*).

(5). The name *Stictis tiliae* is now ascribed to Lasch. The protologue [in Rab. 1844 Kl.: No. 638, copy in L; & cf. 1845 (BZ 3): 66] mentions neither an author nor a locality, so that one may be disposed to ascribe the name to Rabenhorst, the editor of the series. Saccardo [1889 (SF 8): 696] is now followed; he ascribed the name to Lasch and recorded the type locality as "Driesen, Germaniae", though without explaining why.

(6). When Schroeter published *Platyglea nigricans* he did not add 'n. sp.' as he did in the same work when publishing a new species. Since he excluded the type of *Agyrium nigricans* Fr. by excluding the typical form of Fries's species, however, it now appears correct to regard that name as a 'new' name for a 'new' species. The only synonym he cited was not *A. nigricans* Fr. itself, but "Fries 1822? *Agyrium n[igricans] a. [!] minus*", which stands for '*Agyrium nigricans*' "b. minus subsphaericum" Fr. 1822 (unnamed form).

I find it difficult to form an opinion about typical *Agyrium nigricans*, but its forma b quite likely represents *Achroomyces disciformis*.

Atractiella

(7). This genus is admitted to a place on this check list because it was thought that what was described as the conidiophores might in reality be auriculariaceous basidia, a supposition already voiced by its author [cf. Saccardo 1886 (SF 4): : 579]: 'basidia (?) sporomorpha fusoides, recta vel inaequilateralis, apice obtusiuscula triseptata, hyalina; conidiis in basidiorum apice nascentibus ovato-oblongis, hyalinis . . .' Juel (1898: 6-7) once more directed attention to its possibly auriculariaceous nature and suggested that it might perhaps coincide with *Pilacrella*. To the best of my knowledge no supplementary accounts of the fungus have been published.

Auricularia

(8). After de Bary and Brefeld had made known the real nature of the basidia in *Auricularia* sensu stricto and *Hirneola* Fr., it gradually became almost current practice to emphasize the nature of the basidia above any other feature and to regard these taxa as congeneric. Few mycologists have persisted in keeping them apart. Bresadola [1896 (H 35): 291] had already vented his exasperation and Donk (1952) agreed that *Auricularia* and *Hirneola* (including *Laschia* Fr.) were easily recognizable and good generic taxa.

To emphasize the similarity of basidia in the Auriculariaceae is not very convincing. Are there sufficient other characters to uphold the generic distinction? My answer is, Ample! In general appearance *Auricularia* is strongly *Stereum*-like: (i) its fruitbodies become appressed to the substratum or partially reflexed, depending on their position; (ii) neighbouring fruitbodies become confluent wherever they touch each other, to form complex structures, often over extensive areas;

(iii) the sterile surfaces become distinctly zonate; and (iv) from the first the hymenium of the free portions of the fruitbody faces strictly downward. *Hirneola*, on the contrary, is strongly *Exidia*-like in general appearance: (i) its fruitbodies never become appressed or appressed-reflexed but remain completely free from the substratum assuming disc-, cup-, or ear-like shapes and the like; (ii) neighbouring fruitbodies never become confluent, although they may perhaps glue together upon drying; (iii) the sterile surfaces never show the slightest tendency to become zonate; and (iv) the final position of the fruitbodies is often not imposed at a very early state of their development: in certain species (though not of the *Laschia* type) they have usually reached considerable dimensions before the hymenium becomes more or less directed downward—if, in some of the fruitbodies, it ever does. These are all distinctions that are easily observed; together they explain why the fruitbodies of the two genera are so different in appearance. In the handling of well developed material there is never any reason for hesitation in distinguishing between *Auricularia* and *Hirneola*, but—without a microscope—the marked superficial likeness between *Hirneola* and *Exidia* is sometimes baffling.

(9). The circumscription of *Auricularia mesenterica*, expressed in the form of citations of synonyms and descriptions, accepted here makes it essentially a species of the northern temperate zone. From the tropics several forms have been described that by some mycologists are kept separate and by others combined with *A. mesenterica*. Personally I find it very difficult to appreciate the distinction between these species, but for the present I prefer not to commit myself on the correctness of maintaining *Auricularia ornata* and *A. peltata* as distinct species. If they are to be merged into *A. mesenterica* the synonymy of this species should be amended by the following names: *Helvella tremellina* Sw. 1788 (Jamaica) (d.n.), *Auricularia ornata* Pers. 1827 (Mariannes), *A. pusio* Berk. 1881 (Australia), *A. adnata* Lyon 1916 (Line Islands, Pacific), and *A. peltata* Lloyd 1922 (Philippine Islands). The correctness of the name *A. mesenterica* would not be impaired by the inclusion of these names as synonyms.

Helicobasidium

(10). This is still another genus of auriculariaceous species with strictly effused fruitbody and an artificial delimitation. In most respects it constitutes a counterpart of *Achroomyces* (*Platyglœa*): it differs from that genus in its context of more or less loosely interwoven hyphae, which accounts for the different texture, viz. not distinctly waxy to gelatinous. Genera that would fall within its limits are *Herpobasidium* and *Saccoblastia* (sensu stricto): these are separated by the type of parasitism of the former and the sac-like probasidium of the latter.

It would seem advantageous to recognize a naturally defined genus within this artificial assemblage, a genus restricted to *Helicobasidium brebissonii* and about two or three closely related extra-European species. Such a taxon is characterized

by its colours, the consistency of its fruitbody and its slender spores, as well as by the mode of its growth; these fungi attack subterraneous parts of living plants, on which they develop a *Rhizoctonia* state, forming their fruitbodies close above and in contact with the soil-surface.

The species that do not fall within the limits of this natural taxon are treated here as an unplaced rest. The genus is poorly represented in Europe.

(11). Kühn's early researches on two diseases caused according to him by the same fungus have given rise to a number of names. The specific names among these may be briefly reviewed. The hosts were beets and carrots; the fungus is now known as the violet root felt fungus or *Rhizoctonia crocorum* and its perfect state as *Helicobasidium purpureum*, but the correct name would seem to be *Helicobasidium brebissonii*.

Kühn forwarded material from both beets and carrots to Rabenhorst who described it as a new species, *Helminthosporium rhizoctonon* Rab. The original description includes microscopical details that, in combination with the choice of the generic name, strongly suggest that Rabenhorst also included a contaminating fungus; if this conclusion is correct then *H. rhizoctonon* is a nomen confusum. Shortly afterwards Rabenhorst changed this name into *Rhizoctonia daucii* Rab. (1855 Kl. II: No. 74), without furnishing a new description or any remarks. At first Kühn (1856), accepted the name *Helminthosporium rhizoctonon* but after a remark made by Montagne, who identified the taxon with *Rhizoctonia medicaginis*, he decided to use the latter name (Kühn, 1858: 245).

The name *Rhizoctonia betae* was published by Eidam in 1888 (not 1887) as follows:

"... eine Erkrankung [an den Wurzeln der Zuckerrübe in Schlesien] hat sich als echte, durch einen Pilz hervorgerufene Infektions-Krankheit herausgestellt. ... Diese Krankheit ist schon lange bekannt; sie wurde von F. Cohn im Jahresbericht d. Schles. Ges. für 1853 p. 98 ausführlich geschildert und von Kühn in seinem Buch: "Die Krankheits-Erscheinungen der Culturgewächse" [1858] p. 232 auf einen Pilz, *Rhizoctonia Betae*, zurückgeführt."

This passage has been taken to mean that the name *R. betae* was published by Cohn or by Kühn in the works cited. This is incorrect; it should have been cited as *R. betae* 'Eidam'.

The last sentence of the remark by Eidam quoted above had led to the view that he provided a new name for the causative agent (the violet fungus) of the beet disease of which Kühn (1858) had begun the description on page 235 (not 232). This fungus was not in need of a new name since it had previously been called *Helminthosporium rhizoctonon* and *Rhizoctonia medicaginis* by Kühn. There is no indication that Eidam wished to segregate the violet fungus as it occurred on beets as a new taxon specifically distinct from *R. medicaginis* (*R. crocorum*).

It is also significant that Eidam's own description of the fungus he had in mind was *not* the violet fungus. As Duggar (1915: 427, 455) concluded, what Eidam described was very likely *Rhizoctonia solani*. For these and other reasons I would reject the thesis that *R. betae* is still another name for *R. medicaginis* (*R. crocorum*), misapplied when validly published (Braun, 1930: 8). I prefer to follow Duggar in

listing it as a somewhat doubtful synonym of *R. solani* (*Thanathephorus cucumeris*).

The violet fungus, as it occurred on the second host (carrots), did receive a name of its own to a certain extent when *Rhizoctonia dauci* Rab. (see above) was introduced, although the basionym (*Helmintosporium rhizoctonon*) was stated to occur on various substrata ('Ad radicis *Dauci* et *Brassicarum* aliarumque ejusmodi domesticarum abundanter . . .'). (I am unable to explain why both the 'Botanische Zeitung', 13: 599. 1855, and 'Flora', 38: 494. 1855, report that '*Acrostalagmus murinus* Ces. mss.' was issued under number 74, *R. dauci*.) And compare *Rhizoctonia violacea* f. *dauci* Kühn (in Rab. 1875 F.c.: No. 1970, with remarks added). Some subsequent authors, apparently incorrectly, attributed the name *Rhizoctonia dauci* to Kühn (fide Duggar, 1915: 427).

(12). The tendency to publish new specific names for the violet fungus when it had been found associated with a particular host is also apparent in the publication of the name *Rhizoctonia asparagi*. Fuckel ascribed the name to Fries (1822: 266), who once wrote 'Etiam *Rhizoctoniae* in *Asparago* & *Sambuco* *Ebulo* observatae dicuntur.' Since no description was furnished by either Fuckel or Fries the name remained a nomen nudum until Eriksson accepted it and provided a description, regarding Fuckel as the author. I take Fuckel's distribution (Fungi rhén. No. 1499) as type.

Helicogloea

(13). This genus is restricted by the exclusion of the species with floccose fruitbody, which are placed in *Saccoblastia* (22). Baker's conception (1936) covers both these genera under the name *Helicogloea*.

In order to improve generic delimitations it will be useful to recall *Helicogloea intermedia* (Linder) G. E. Bak. and *H. terminalis* L. Olive, both extra-European species. It is usual to characterize the probasidium in *Saccoblastia* and *Helicogloea* as a lateral body, i.e., a lateral extension from a hypha. Often the metabasidium is produced as a terminal segment of this hypha, but it may also sprout directly from the probasidium itself. Also very important is that in *Helicogloea* and *Saccoblastia* it is characteristic for the probasidium to become bent in the direction of the substratum. In *H. intermedia* (Linder, 1929) two types of basidia are met with: the usual type and one that may be called axial. In this second type the probasidium develops terminally and points away from the substratum, while the metabasidium develops directly and apically from it, and in a direct line with it; in other words, the mature basidium is about the same as in some species of *Achroomyces* (*Platygloea*) with persistent probasidium. In *H. terminalis* all probasidia are strictly axial and intercalated. Technically such a species might well be placed in *Achroomyces*. However, in Olive's opinion [1954 (BTC 85): 332] "in *Platygloea* the persistent probasidia, when present, are never so regular in size and shape as they are in *Helicogloea*." The current distinction between *Helicogloea* and *Achroomyces* appears to be very weak indeed.

It would seem that on reaching maturity the metabasidium of several species of

Helicogloea is an extruded body, procumbent on the surface of the fruitbody. This may be seen in fresh material but it may also be deduced from the sterigmata: those originating on a single metabasidium are short to fairly short and of about equal length. In typical species of *Achroomyces* the metabasidia remain included in the fruitbody, where they are more or less vertically opposed to the surface, while the sterigmata of the part-cells of a metabasidium must cover unequal distances to reach the surface. This distinction is presumably of ecological importance. Whether or not it is also of taxonomic importance is as yet difficult to judge because on several species of *Helicogloea* no relevant information has as yet been published; in a number of descriptions no details have been published even on the sterigmata.

(14). Baker (1936: 93) conceived *Helicogloea lagerheimii* as a species with a wide range of spore dimensions. She found the type to have spores 13–15–18 μ long, and as a result of her study of numerous other collections she gave the total range of the spore length of the species as 8–18 μ . If she had taken *Saccoblastia sebacea* subsp. *S. subardosiaca* Bourd. & G. into consideration (spores stated by Bourdot & Galzin to be 15–18 μ long) she would presumably also have listed this taxon as a synonym. According to its authors it differed from *Saccoblastia sebacea* (= *Helicogloea lagerheimii*), “par son épaisseur, sa teinte et ses spores plus grandes.” As European collections of *H. lagerheimii* have average spore sizes not exceeding about 10–12 μ , it is just possible (i) that after all *Saccoblastia sebacea* (European collections) may be different from typical *Helicogloea lagerheimii* from Brazil and (ii) that *Saccoblastia subardosiaca* will prove to be a distinct species. Material I collected in Sweden has the larger spore size and confirms the existence of large-spored forms in Europe. Pending more detailed and conclusive studies there is little to be done except to maintain Bourdot & Galzin’s taxon as distinct. The alternative at the moment would be unobtrusively to reduce this name to the synonymy of *H. lagerheimii*, but I rate Bourdot & Galzin’s work too highly to do so without careful study. — ***Helicogloea subardosiaca*** (Bourd. & G.) Donk, *comb. nov.*; basionym, *Saccoblastia sebacea* subsp. *subardosiaca* Bourd. & G., Hym. Fr. 5. 1928 \equiv *Saccoblastia subardosiaca* (Bourd. & G.) Linder in Ann. Missouri bot. Gdn 16: 487. 1929.

Herpobasidium

(15). When Gould (1945) described *Herpobasidium deformans* he had already established the connection between the perfect and the imperfect state of this fungus. The imperfect state had been called *Glomerularia lonicerae* Dearn. & House (nomen nudum) (16). As already suggested by Peck, this imperfect fungus appears to be closely related to *Glomopsis corni* (Peck) D. M. Hend., the type of the generic name *Glomerularia* Peck \equiv *Glomopsis* D. M. Hend. According to Henderson (1961: 501), “the conidial stage of *Glomopsis lonicerae* is undoubtedly congeneric with *Glomopsis corni* and the two differ only in certain minor respects.” In view of this expert opinion it would seem not unlikely that the type of *Glomopsis* may also be expected to be an

imperfect state of a basidiomycete, perhaps even of a species of *Herpobasidium* adapted to *Cornus canadensis*.

Henderson (1961: 499) considers *Glomopsis* to be the nearest relative of *Glomospora* D. M. Hend. The only species and type of the latter generic name is *Glomospora empetri* D. M. Hend. (1961: 497). This species was found in Scotland on *Empetrum nigrum* and *E. hermaphroditum*.

(16). Gould (1945) pointed out that the name "*Glomerularia lonicerae* (Pk.) D. & H.", given to the imperfect state of *Herpobasidium deformans*, was a nomen nudum (p. 318). At the same time he showed no inclination to publish it validly as the correct name for the imperfect state. His use of it is a perfect example of 'incidental mention'. Moreover, even if he had thought that it ought to be retained for the imperfect state, he failed to publish it validly since he neither referred to a valid and previously published description nor did he give an accompanying Latin description. Briefly, the history of the name is as follows. Peck (1885) was the first to record the fungus, as *Glomerularia corni* "on *Lonicera ciliata*", without, however, providing either a name or a description. Dearness & House (1923) behaved as though he had actually published the name *G[lomerularia] corni* var. *lonicerae* Peck and they proceeded to recombine it as "*Glomularia lonicerae* (Peck) comb. nov." (the correct spelling of the generic appellation should have been 'Glomerularia'), but they still failed to provide a description. As pointed out above, Gould did nothing to improve on the nomenclative status of the name and evidently did not wish to. When Henderson (1961) replaced the preoccupied generic name '*Glomerularia*' by '*Glomopsis*', he also remarked, "If a name is required for conidial *Herpobasidium deformans* the following is proposed. / *Glomopsis lonicerae* (Peck ex Gould) Henderson, comb. nov. . .". Not only because this introduced only a provisional name, but also because there was no valid reference or Latin description the new name remained a nomen nudum. Since I believe that it is desirable, to have a validly published name for the imperfect state, I herewith establish the following by adopting and translating into Latin Henderson's English characterization of this state with respect to *Glomopsis corni* (Peck) D. M. Hend.

***Glomopsis lonicerae* Donk, sp. nov.**

[*Glomerularia corni* "on *Lonicera ciliata*" Peck in Rep. New York St. Mus. 38: 111. 1885 (lacking descr.). —] *Glomerularia corni* var. *lonicerae* Dearness & House in New York St. Mus. Bull. Nos. 243-244: 85. Issued May 15, 1923 (name attributed to Peck and listed as a synonym; "1921"). — *Glomerularia lonicerae* Dearness & House in New York St. Mus. Bull. Nos. 243-244: 85. 1923 ["*Glomularia* . . . (Peck) comb. nov."; "1921"; nomen nudum]; Gould in Iowa St. Coll. J. Sci. 19: 301, 317, 319. 1945 (incidental mention). — *Glomopsis lonicerae* (Dearness & House) D. M. Hend. in Notes R. bot. Gdn Edinb. 23: 501. 1961 ["(Peck ex Gould)"; nomen provisiorium & nudum].

A *Glomopsis corni* (Peck) D. M. Hend. differt conidiophoris epidermidem per poros stomatorum penetrantibus; si vero conidiophori 2 vel plures eundem porum penetrant, per laminas faciem distanter dispersi sunt, atque nunquam sorum completum formant.

This differs from *Glomopsis corni* (Peck) D. M. Hend. in that the conidiophores penetrate the epidermis only through stoma pores and although two or more may penetrate one pore the conidiophores are dispersed at intervals over the leaf surface and never form a compact sorus. — Type: U.S.A., labelled by Peck, "Aiden Lair, Adirondack Mts. Charles H. Peck, June, form *loniceræ ciliatæ*" (NYS).

Hirneola (8)

(17). During the past decennia some confusion has arisen about the correct specific name of the Jew's or Judas's ear. This was due to changes incorporated in the "Code of Botanical Nomenclature" as well as to the fact that Fries misinterpreted the species when accepting it in the starting-point book. As was pointed out by Donk (1958b: 171, and earlier), "when Fries returned to this species in his 'Systema' (2: 221. 1822) it is clear that the species he then described under the name of *Exidia auricula-judae* is a mixture of the true Judas's ear (compiled from literature) and of a species of *Exidia* Fr. which was studied from specimens (description!) . . . *Hirneola auricula-judae* is exceedingly rare in Sweden: besides the collection distributed by Lundell & Nannfeldt, I came across [only one other Swedish] specimen in Thunberg's herbarium at Uppsala . . . Linnaeus had mainly the true *H. auricula-judae* in mind (literature)." There are now two schools of thought about the typification of revalidated and at the same time misapplied names. Some authors desire to choose the type from the material to which the name was misapplied, which would in this case make 'auricula-judae' an epithet pertaining to a species of *Exidia*. Others think that Fries himself conceived a species including more than one specific element and that by the choice of the epithet he clearly indicated that he definitely included the *Hirneola* element. His choice of the name amounted to admitting the type of that name and its basionym, *Tremella auricula* L., to his conception so that it is logical to stick to it. This point of view does not vie with the Code and is in strict agreement with the type method basic to its philosophy. Not the least of the reasons for adopting it here is that it is possible that Fries had studied Thunberg's material as one of the specimens used in drawing up his account of the species in the "Systema". Hence, in my opinion, the correct epithet is 'a u r i c u l a - j u d a e'.

There remains the question as to precisely which collection must be regarded as the type of the name *H. auricula-judae*. Since its pre-starting-point basionym, *Tremella auricula-judae* Bull., must be considered a mere variant of (or at most as a name change for) *Tremella auricula* L. and since Fries quite obviously thought that Linnaeus had called it "*T. Auricula Judae*" it is best to select from Linnaeus's citations the one accompanied by an illustration, viz. *Agaricum Auricula forma* Mich. (1729: 124 pl. 66 f. 1), and to regard the specimens depicted by Micheli as lectotype of *Tremella auricula* L. and all the isonyms listed above (pp. 158-159).

(18). *Hirneola auricula-judae* has been too broadly conceived by authors following in the track of Möller (1895: 42). From his experience in southern Brazil

he arrived at the, certainly erroneous, conclusion that all the species of *Hirneola* he came across were merely forms of a very variable species that he called *Auricularia auricula-judae*. Even *Laschia delicata* Fr. were such a form; in this the hymenium develops distinctly merulioid. This point of view was later defended by Holtermann and also by Lloyd. My own long experience in the tropics (Java) and Europe, as well as my fleeting experience in North America, have convinced me that *Hirneola* comprizes several good species even though the delimitations of these species are far from being well understood.

It seems safe to postulate for Europe (in nature) a single species occurring principally on *Sambucus* but also on various other frondose trees like *Fagus*, but not on conifers (such as a form called *H. auricula-judae* in Canada). The possibility that in Mediterranean Europe there may occur other species should be kept in mind. It is also safe to assume that the specific delimitations within the genus have not yet been worked out satisfactorily, especially as far as neighbouring Asia and North Africa are concerned. This explains why only synonyms based on European material are given in this check list. It is not improbable that other names based on extra-European collections should have been mentioned, but it remains for a future monographer to work these out.

M y c o g l o e a

(19). This genus was for the first time almost completely understood by von Höhnelt (1917) but because he believed that it should be identified with *Mylittopsis* Pat., described from North America, it was not published as a new genus. This error of identification is understandable if one looks up Patouillard's incomplete account (1895); this does not describe the further development of the young basidia. It was afterwards found by Rogers & Martin (1955) that (in contrast to *Mycogloea*) the maturing basidia in *Mylittopsis* do not move from their place of origin and produce outgrowing sterigmata which reach just beyond the outer surface of the fruit-body to produce their spores. When well-developed the fruitbodies are also considerably larger.

von Höhnelt interpreted the 'primary spores' of *Dacrymyces macrosporus* correctly as basidia, and the 'secondary spores' as basidiospores: "es ist mir nicht zweifelhaft, dass die Primärsporen keine solchen, sondern abgerissene Auricularieen-Basidien sind". Of freshly collected material that he regarded as conspecific with *D. macrosporus* he stated: "Die Konidien [Basidien] lösen sich leicht in Menge von ihren Stielen ab." What he did not perceive was that this was the normal process and that the basidiospores are formed on the freed basidia.

(20). In search of a name for a fungus that he had collected in Austria and Herzegovina, von Höhnelt after studying their protologues only concluded that it was conspecific with *Dacrymyces macrosporus* B. & Br. and *Fusisporium obtusum* Cooke. The study by McNabb of the types of both these names has shown that he

was correct. Instead of taking up *D. macrosporus* as basionym, however, von Höhnelt preferred to identify his fungus with *Tremella fragiformis* var. *carpineae* A. & S. He based his judgement only on the original description and this is so incomplete that it is wiser not to follow him. In any case the specific combination '*Mytilopsis carpineae*' adopted by von Höhnelt is of a later date than the name *D. macrosporus*.

Phleogena

(21). It is unlikely that the list of synonyms given above is exhaustive; in the genus *Pilacre* there are still a few 'species' described from various localities all over the world that might appear to belong under *Phleogena*. Whether or not this genus is monotypic or, perhaps, consists of a number of closely related species is still open to doubt.

Saccoblastia

(22). This genus as treated by Bourdot & Galzin (1928: 4) consisted of two sections, one, '*Saccoblastia* Moell.', with "Réceptacle floconneux hypochnoide", and the other, '*Saccogloea*', with "Réceptacle gélatineux muqueux". This was in agreement with Bresadola's view and the then current interpretation of Möller's species as floccose or hypochnoid. Then Baker (1936: 93-95) interpreted the consistency of *Saccoblastia ovispora* A. Möll., the type species of the generic name *Saccoblastia* A. Möll., as mucous-gelatinous and she boldly identified it with *Helicogloea lagerheimii* Pat. apud Pat. & Lag. This led to the complete replacement of the name *Saccoblastia* by *Helicogloea* since she regarded these two generic names as based on the same species. According to this view Bourdot & Galzin had misapplied the name when they used it in a restricted sense and referred the floccose European *Saccoblastia pinicola* to what they considered to be the type section.

Donk (1958b: 242) questioned Baker's view and concluded that the type species is in fact floccose, as had been previously assumed. Since no type or other material of it is known to exist, Möller's protologue is the only source from which the true nature of the consistency of the fruitbody can be established. In my opinion it is beyond reasonable doubt that this is 'floccose' rather than 'gelatinous'. Future well-annotated collections from the type locality (Brazil, Blumenau) are needed to shed new light on this question.

The next question to be considered is whether or not the two sections recognized by Bourdot & Galzin are worth maintaining. Baker (1946: 630) expressed here opinion as follows: "The genus falls naturally into two lines depending upon the character of the fructification, which may be of the mucous-gelatinous ('tow-like') type, or the distinctly floccose (hypochnoid) type." This agrees with my own findings and supports the conclusion, offered here as a working hypothesis, that the two sections deserve to be treated as distinct genera.

(23). ***Saccoblastia farinacea*** (Höhn.) Donk, *comb. nov.*; basionym, *Helicobasidium farinaceum* Höhn. in Sber. Akad. Wiss., Wien (Math.-nat. Kl., Abt. I) 116: 84. 1907.

TREMELLINEAE

Craterocolla

(24). Several generic names have been proposed for this genus, but the protologue of only one, *Craterocolla* Bref., emphasizes and fully describes both the imperfect and perfect state. In a note below (26) it is pointed out that *Ombrophila* Fr. sensu Quél. 1873 evidently also includes both states, but that at that time Quélet had not yet recognized the true nature of the basidia, which he was apparently describing. This was prior to the publication of *Craterocolla*, but *Ombrophila* sensu Quél. was not a new name: it is merely a misapplication of the name of one of the genera of discomycetes and as such has no nomenclative standing. When in 1892 Quélet definitely excluded the type of *Ombrophila* Fr. he established a later homonym (which is impriorable) and changed its definition to such a degree that it is impossible to regard it as based on a species of *Craterocolla*.

The other generic names are nomina anamorphosium. This is quite clear in the case of *Poroidea* Wint., in which no trace of the basidiferous state had developed. In my opinion *Ditangium* P. Karst. is also based on the imperfect state, although traces of the perfect state may have been present, as was later claimed by Karsten. Donk [1962 (Ta 11): 83; 1964 (Ta 12): 16] discussed the nomenclative status of this name at some length and concluded that the names *Ditangium* and *D. insigne* were intended only for the imperfect state; at the time of publication the author was evidently unaware of the existence of the perfect state. Hence, the two names are nomina anamorphosium as well.

(25). Establishing the correct name for the species often called *Ditangium cerasi* (Schum. per Tul.) Cost. & Duf. is no mean task. A discussion on what must be considered to be the correct generic appellation (viz. *Craterocolla*) was presented in the preceding note.

Tremella cerasi Schum. (1803: 438) was described as follows:

"gregaria, gyroso-lobata substipitata dilute purpurascens diaphana. Inter corticem & lignum *Pruni Cerasi*. Decemb. An potius Varietas *Pezizae metamorphae*?"

This does not agree with the species of *Craterocolla* under discussion. Fries (1822: 217) considered Schumacher's species to be conspecific with *Tremella sarcoides* Fr. [= *Pirobasidium sarcoides* (Fr.) Höhn.], an imperfect state of the discomycetous fungus *Coryne sarcoides* (Jacq. per Pers.) Tul., and Neuhoff (1935: 3) concluded that Fries might well have been correct. In any case Neuhoff dropped *Tremella cerasi* Schum. from the synonymy of '*Ditangium cerasi*'. In my opinion, the original description suggests a species different from *Pirobasidium sarcoides*, although it is apparently closely related to it, viz. *Sirobasidium cerasi* Bourd. & G., recently so well redescribed by Christiansen (1963) and Malençon (1964). This is the imperfect state of another species of *Coryne*; it has been found in Sjaelland (Denmark), the locality from which *T. cerasi* Schum. was described.

Like Neuhoff, I am convinced that when the Tulasnes (1871: 39) took up the name *T. cerasi* Schum. they misapplied it. To my way of thinking this indicates that *T. cerasi* Schum. per Tul. must be replaced by another name. According to the "Code" it is true that Neuhoff published a new name, i.e. *Ditangium cerasi* Neuh., for a new species when he excluded the type (viz. *T. cerasi* Schum.) but this name is preoccupied by *Ditangium cerasi* (Schum. per Tul.) Cost. & Duf. 1891; because of the pre-existence of *Craterocollla cerasi* (Schum. per Tul.) Bref. Neuhoff's new name can also not serve as basionym for a new combination with *Craterocollla*. Finally, it is impossible to invoke a new rule by assuming that '*Tremella cerasi* Tul. (non Schum.)' were based on the perfect state of '*Tremella cerasi* Schum,' and that accordingly it must be typified by the perfect state: the Tulasnes described a quite different fungus with an imperfect state of its own.

The next step is to determine whether there is a validly published name based on the perfect state available. To be dismissed are the following names listed as synonyms by Neuhoff (1935: 3-4): *Ditangium insigne* P. Karst. (24); "*Ombrophila lilacina* Quélet" = *Ombrophila lilacina* (Wulf. per Fr.) P. Karst. sensu Quélet, a misapplied name (26); *Dacrymyces conglobatus* Peck, based only on the imperfect state and therefore a nomen anamorphosis; *Poroidea pithyophila* Göttinger ex Wint., another name based on the imperfect state; "*Ombrophila rubella* Quélet" = *Ombrophila rubella* (Pers. per Pers.) Quélet. sensu Quélet, another misapplied name (26); and *Ombrophila pura* (Pers. per Pers.) Fr. sensu Quélet. (26, 40) and *Peziza cerasina* (Wulf.) per Steud. (26), still other misapplied names, neither of them mentioned by Neuhoff.

From my interpretation of the "Code" I can only conclude that *Tremella cerasi* sensu Tul. has as yet no correct specific name. Pending further inquiry into this question, I am taking it for granted that the addition of 'Schum.' to the name *Tremella cerasi* by the Tulasnes was an error.

(26). Quélet's knowledge of the paper by the Tulasnes (1872) on Tremellales was remarkably incomplete. It is obvious that he had never studied their description of *Tremella cerasi* Schum. sensu Tul. carefully, otherwise his interpretations of the genus *Ombrophila* Fr. would have been less confused.

His first generic description of *Ombrophila* "F." [Quélet, 1873 (MMb V 2): 412] runs: "Conique, tronqué et marginé, gélatineux, à la fin déformé, tremblotant et visqueux par l'émission des spores." A more correct definition would have been: 'Fruitbodies gelatinous, of two kinds, minute cup-like and marginate succeeded by appressed, cushion-shaped, then irregular and much larger ones.'

Ombrophila violacea Fr. sensu Quélet. (1873): "Obconique (1-2 millim.), puis déformé, trémelloïde (2-3 cent.), rose-violacé, pâle. Spore ovoïde. Conidies, courbés. / ... En groupe sur les troncs des vergers (Cerisier)." This is almost certainly typical *Craterocollla cerasi*. The ovoid spores may have been basidia. — In the original sense this is a discomycete now known as *O. violacea*.

Ombrophila lilacina (Wulf. per Fr.) P. Karst. sensu Quélet. (1873): "Gélatineux-mou, plus haut que large (1 millim.); disque plat, pruineux, lilacin. Déformé et gonflé

(une noisette) par l'humidité. / . . . Branches mortes, pommier." This description is by itself insufficient for recognizing the fungus; however, the figures (if not transposed) show not only the two kinds of fruitbody but also what may be taken as (undivided) tremellaceous basidia as well as curved spores. Hence, this might also well be *Craterocolla cerasi*. — In the original sense this is a discomycete now known as *O. lilacina*.

Thus far Quélet in his publication of 1873. Ten years later, on the occasion of the publication of a third species, Quélet [1883 (Crf 11): 402] had come to the conclusion, that his genus "*Ombrophila* est un genre de la famille des Trémellinées, voisin de *Exidia* et comprenant les espèces exosporées de l'ancien genre de Fries, comme *lilacina* . . .". The species added is:

Ombrophila rubella (Pers. per Pers.) Quél. sensu Quél. (1883). Description and figures (showing mature tremellaceous basidia) are sufficient for again recognizing *Craterocolla cerasi*. — In the original sense this is a discomycete now known as *Hyalina rubella* (Pers. per Pers.) Nannf.

In subsequent work *Ombrophila* was given a new and surprizing definition (Quélet, 1886: 230): "Tremulae, e globoso truncatae, marginatae. Hymenium discoideum. Spora ellipsoidea, incurva. Corticolae." A further species entered into the picture and it was this addition, *Ombrophila pura* (Pers. per Pers.) Fr. sensu Quél. that brought about the change. This influence is even more apparent in Quélet's following definition (1888: 20): "Gelatineux, globuleux puis hémisphériques, marginés et enfin bosselés, difformes. Hymenium *plan, marginé*. . . ." (Italics as in the original.) I am almost convinced that Quélet had come across *Neobulgaria pura*² (40), or perhaps *Myxarium hyalinum* (in view of the spores and the colour of the fruitbody, though this is not marginate), but although he cited *Ditangium insigne* P. Karst. as synonym his fungus is certainly not a species of *Craterocolla*, like *C. insignis* (27). As substratum he gave, "Sur l'écorce des sapins, dans les montagnes." His 'protologue' suggests a very thorough mixture of at least two, very probably more, unrelated species.

That by 1886 Quélet had changed his conception of *Ombrophila* also appears from a later remark: "Le genre *Ombrophila*, Fr. Sum. Veg. p. 357, comprenait au moins deux genres appartenant à des familles éloignées: *Ombrophila violacea* (Hedw., mic. an. 1789, t. 8 f. A.),³ ascospore, type du genre *Ombrophila*, [Fr. em.] Karst., et *Ombrophila pura*, Pers., (Obs., I., p. 40), basidiospore, type du genre *Ombrophila* [Fr. em.] Quél., Enchir., page 23"—Quélet [1892 (Rm 14): 67]. By expressly excluding the type of *Ombrophila* Fr. (viz. *O. violacea* Fr.) Quélet, in 1892, introduced a new generic name, *Ombrophila* Quél. (non Fr.) that he holotypified by his conception of *Peziza*

² "Globuleux, obconique (o^{m02}), glabre, incarnat-purpurin. Hymenium plan concave, bordé d'une marginelle flexueuse, diaphane. Spore arquée ($o^{mm012-15}$), hyaline. . . ."—Quélet, 1888: 20.

³ The author's citation 'Hedw.' is an error introduced by Karsten and disseminated by Rehm 1891 (RKF 1³): 477. The species intended is *Ombrophila violacea* Fr. \equiv *Peziza clavus* var. *violascens* A. & S.

pura Pers., which, perhaps, and at least in part, may be the same species as the holotype of *Neobulgaria* Petr. (40), to which some foreign features (basidia and spores) were added that led to the new genus. This makes *Ombrophila* Quél. 1892 not only a later homonym but also a nomen confusum. It may be pointed out that as early as 1886 *O. violacea* sensu Quél. had disappeared as a species of Quélet's conception of *Ombrophila* Fr.

A further addition to the genus made by Quélet (1886: 230) was *Ombrophila rubella* var. *cerasina* "Wulf." In his next book (Quélet, 1888: 20) he dropped it as a distinct taxon and listed it as a synonym of his interpretation of *Ombrophila rubella*. I find it difficult to guess at the identity of "*Elvella*" *cerasina* Wulf. (see "Index"). From the section of the description published by Quélet one would conclude that he had correctly identified it, viz. as the imperfect state of *Craterocolla cerasi*. However, von Wulfen's protologue [cf. Persoon, 1801: 635] also contains "Stipites . . . semi pollicaris", which indicates a much bigger fungus. I am not prepared to follow Quélet in his identification.

(27). On the basis of its geographical distribution and substratum ("Semper ad *Piceam excelsam*, praesentim ad caudices corticatos prolapsosque in silvis virgineis crescit"), Laurila [1939 (AVA 10⁴): 1] considered *Ditangium insigne*, as he found it in Finland, to be a 'biological' species possibly distinct from *Craterocolla cerasi*. He admitted, however, that its microscopical features agreed fairly well with *C. cerasi*. He gave no description of the perfect state of *Ditangium insigne*; the most complete description of this was published by Eriksson, who followed Laurila in conceiving it as specifically distinct. Neuhoﬀ had provisionally admitted two forms within one species.

I have refrained from accepting this second species mainly because no specific name based on the perfect state is available, *Ditangium insigne* being in my opinion a nomen anamorphosis (24). Further information about its distribution together with other details are needed. It may be recalled that *Poroidea pithyophila* (which is usually regarded as another synonym of *Craterocolla cerasi* given to the imperfect state) was found on "Fichtenrinde" and presumably in Austria. *Dacrymyces conglobatus* Peck was found on "bark of arbor-vitae, *Thuja occidentalis*."

Eichleriella

(28). In its currently accepted circumscription the main features of this genus that differentiate it from *Sebacina* sensu lato, are the well-developed basal layer of thick-walled hyphae parallel to the hymenium and the fruitbody, said to be 'cupulaire ou résupiné à bords libres' (Bourdot & Galzin, 1928: 46). This last feature is not correct without the additional qualification, 'in dried fruitbodies'. It is the contraction of the well-developed basal layer that causes margins of the fruitbody to loosen from the substratum, as in *Peniophora quercina*. Although I have retained it in the same circumscription as Bourdot & Galzin, this does not imply that the genus

might not be artificial. That it is not a natural one has been maintained recently, e.g. by Wells (1962: 321–322).

Wells has transferred to *Exidiopsis* the type of the name *Eichleriella*, viz. *E. incarnata* (which he identifies with *E. alliciens*⁴) together with *Eichleriella leucophaea* and a few other, extra-European, species as well as with *Sebacina calcea* because he does not consider the basal layer sufficiently characteristic to maintain this group as a distinct genus. The reason that *Sebacina* (= *Exidiopsis*) *calcea* escaped classification as a species of *Eichleriella* is that the somewhat abrupt margins of its fruitbody do not loosen upon drying; this implies that its basal layer is not quite so strongly developed as in the other members of the artificially conceived genus *Eichleriella*. I considered accepting Well's disposition of the type species and its allies as members of *Exidiopsis*, but this would have resulted in the loss of the name *Eichleriella* altogether and left a residue for which so far no adequate alternative classification has been proposed. Meanwhile it has seemed preferable to remain 'conservative' and to maintain *Eichleriella* unaltered.

Eichleriella spinulosa (29) is considered by Wells to belong to a series of which such extra-European species as *Heterochaete delicata* (Kl. ex Berk.) Bres., *H. lividofusca* Pat. apud Pat. & Lag., and *Protohydnum cartilagineum* A. Möll. (sensu G. W. Mart.) are a part and which is distinguished by basidial characters. These species, according to Wells (1962: 321), "have large clavate basidia in which longitudinal septa apparently diverge in basal regions to delimit short, sterile stalks. All of these species have basidiocarps of essentially the same texture, and spines of varying sizes are formed in most of the basidiocarps." However, much additional information on these and other species must still be gathered before this group can be more definitely isolated in the form of one or more distinct genera. Several generic names are tied to species of this series: *Protohydnum* A. Möll. [cf. 1958 (Ta 7): 241] to *Protohydnum cartilagineum*, *Bonia* Pat. [cf. 1958 (Ta 7): 172; preoccupied] to *Bonia papyrina* Pat. = *Heterochaete delicata*, and *Heteroradulum* Lloyd [cf. 1958 (Ta 7): 202; not accepted by its author: n.v.p.] to *Radulum kmetii* Bres. See also remarks on *Heterochaete* (41).

Finally it should be remarked that a few odd, extra-European species would seem to belong to neither the one nor the other of the two groups outlined above.

(29). Since Burt identified *Radulum deglubens* with *Eichleriella spinulosa* this disposition has been generally accepted except that recently Reid concluded that *R. deglubens* differed from *Eichleriella spinulosa* in "that the true *E. spinulosa* has narrower spores and smaller basidia than the European material [*R. deglubens*]. In addition the probasidia of the European collections are strongly clavate whilst those of true *E. spinulosa* are cylindrical to broadly ovate." Moreover, Reid concluded that the correct name for the European species was *Eichleriella deglubens* (B. & Br.) Lloyd.

⁴ Neuhoﬀ (1936b: 31) referred *Eichleriella incarnata* to *Eichleriella spinulosa*, which, as to the European conception (29), is a quite different species. Both authors said they had studied the type.

Because he was unable to note any significant difference between European and American specimens Wells (1962: 364–365) could not agree. Shortly afterwards Reid & Austwick [1963 (GN 18): 329] stated that examination of the type of *Eichleriella spinulosa* showed it to be a gloecystidiolate fungus with narrower spores, $15.6\text{--}16 \times 6 \mu$, probably belonging to the genus *Heterochaete*.

Pending further research on this question *E. spinulosa* will not be accepted in this check list as a European species. If the two are distinct, it is still possible that both may occur in Europe.

As for the correct name, it may be pointed out that the name *Eichleriella deglubens* has not yet been validly published: Lloyd never accepted the combination as correct and Reid cited the basionym only through an insufficiently detailed reference.

Exidia

(30). This genus is emended here by the exclusion of all species known to possess myxarioid sphaero-pedunculate basidia (43). These have been transferred (i) to *Myxarium*, which now consists of the *Exidia gemmata* group; or (ii) they have been placed in an appendix ('Microtremella') to *Tremella*, as far as the species with minute fruitbodies are concerned. This appendix also includes a few other species with equally minute fruitbodies, the exact nature of the basidia of which is still unknown. In this way the species with not quite typical 'Exidia'-spores and immarginate hymenium were removed, the genus thus gaining in homogeneity.

The most important study devoted to the genus is that by Neuhoﬀ (1936b: 7) on the European species. I have followed him as closely as possible. On some important points I was compelled to deviate from his conclusions: my reasons are given in the following notes and in the Note on *Tremella intumescens* (65).

(31). The current conception of *Tremella albida* Huds. is firmly established. Hudson's protologue strongly suggests that it is correct. The first application of the name based on personal observations (Engl. Bot. pl. 2117) is also in agreement. As one of the details the plate even shows the sausage-shaped spores characteristic of true species of *Exidia*. Brefeld re-introduced the species in this sense in modern literature and Neuhoﬀ followed him. Interpretations of *T. albida* as a species of *Tremella* cannot be upheld and must be renamed (58).

After making several collections of *Exidia* in Sweden, I realized that Fries's conception published in the "Systema" is different from the species now called *Exidia albida*, at least as far as his own description goes. He described two forms (which he did not provide with names): (i) the form he had principally in mind and that must be regarded as the typical one (form a), and (ii) his forma "b". Leaving aside a very few descriptive words taken from other authors,⁵ as well as all citations and synonyms, the following description and comment results:

⁵ Left out: "[Color . . . demum . . .] & nigrescens. (Bull. l.c. f.c.) 'lutescens' Sowerb. l.c."

Form a: "... expansa, tenax, undulata, subgyrosa, albida. / a. adscendens, l. rotundata ... / Affinis *T. mesentericae*; sed minor, tamen a, saepe uncialem ... longam reperi. Forma nulla constans; sed superficies demum pruinosa, substantia fere callosa. Color albidus, hyalinus, demum fuscescens ... Ne cum varietatibus glaucis *Exidia glandulosae* commutes, cavendum est. Ad ramos varios sed praecipue fraxineos, passim. Hieme, vere. (v.v.)."

Formb: "b. effusa, applanata. ... / ... b. 3-4 unc. longam reperi ..."

This information is sufficient for recognizing a species of *Exidia* common throughout most parts of Sweden, where it occurs mainly on birch. In particular I should like to emphasize "... expansa, tenax ... substantia fere callosa. Color albidus, hyalinus, demum fuscescens ...". These words, in combination, are applicable only to *E. cartilaginea*, typical form.⁶ In only one point does Fries's description fail to fit this species like a glove: various frondose trees may serve as substratum, but the most common host in Sweden is *Betula* rather than *Fraxinus*.

The first full description of *Tremella albida* sensu Fr. was published by Karsten [1876 (Bfi 25): 347; "sec. Fr."], who added details of the spores; he also distributed *E. cartilaginea* twice under the name *Tremella albida*. It is clear that he reserved the name *T. albida* for Fries's conception and, moreover, that he was in doubt about its correctness, otherwise he would not have added "sec. Fr."

It is interesting to note that Neuhoﬀ (1936b: 16) recognized *E. cartilaginea* in Fries's description only with reservations. He thought that 'Fries, in his *Tremella albida*, seems to have combined this species with all the other bright-coloured [hellfarbigen] species of *Exidia* and *Tremella*' (translated). This is true only if the references and the descriptive quotations admittedly taken from other authors are taken into consideration. It is still more remarkable to note that Neuhoﬀ also stated that *E. cartilaginea* 'is mentioned as *Tremella albida* with tolerable certainty by Sommerfelt in 1826 for the first time in literature' and he then proceeded to cite Sommerfelt's description (1826: 306), without realizing that this is practically identical with that of Fries's! Compare: "... expansa, tenax, undulata, subgyrosa, albida. ... / ... Numquam candida, sed albida subhyalina, demum fuscescens. Substantia fere callosa. Subeffusa, ad 2 unc. long." If this description points to *E. cartilaginea* "mit ziemlicher Sicherheit" I do not understand why that of Fries should not. It may be mentioned that Sommerfelt gave as substratum rotten, fallen branches of *Betula alba*, which is more likely to the point than Fries's indications.

What does the form b represent? Again I can conclude only *E. cartilaginea*. Fries merely distinguished between two growth-forms. His forma a ("adscendens l. rotundata") is matched by some fruitbodies depicted by Neuhoﬀ (1935: Ft. 3 f. 1). There is no reason to suppose that forma b would be anything but the flattened, confluent form depicted in the same figure. There is no indication that necessitates the conclusion that more than one species is involved in Fries's description, drawn up from fresh material.

It is true that the citations and references all refer to species different from *E. cartilaginea*. These are *T. albida* Huds. (\equiv *Exidia albida*), the name-bringing ref-

⁶ *Exidia cartilaginea* f. *abromeitii* Neuhoﬀ. will not be considered in this connection.

erence; *T. candida* Pers., which I interpret as a species of *Tremella* (58); and *T. cerebrina* var. *alba*, another species of *Tremella* (59).

The correct name still remains to be settled. The name *Tremella albidia* was re-validated by Hooker in its (presumably) original sense. By accepting the name in his "Systema", Fries made it a nomenclatively correct one. It is immaterial that he misapplied it, or, rather, applied it to a mixture of different species; by ascribing the name to Hudson he clearly indicated that he also included Hudson's species in his overall conception, and that species represents the type. Other authors who are disposed to accept the above conclusion about Fries's conception may feel obliged to transfer the name *Tremella albidia* to *Exidia cartilaginea* and proceed to call the true *T. (Exidia) albidia* by still another name, perhaps *T. thurettiana* Lév. 1848.

(32). *Tremella glauca* Pers. was too briefly described to be more than a nomen dubium: "effusa tenuis, caesio-albida. (Ad ramos *Samb. racem.* &c.)." Later on Persoon (1801: 624) reduced it to a variety or subspecies or *Tremella spiculosa* Pers. = *Exidia glandulosa* Bull. This information taken together strongly suggests *Exidia albidia*. The only author to record Persoon's species and to re-describe it somewhat more fully was Schumacher (1803: 438) and I have little doubt that his fungus ("caesio glauca") is indeed *E. albidia*.

As pointed out above, Fries misinterpreted *Exidia albidia* by confusing it with *E. cartilaginea*. Did he know the true *E. albidia* when writing the second volume of his "Systema"? This seems very likely, since it occurs in the neighbourhood of Femsjö. That Fries (1822: 224, 225) reduced *Tremella glauca* of both Persoon ("junior") and Schumacher to his broadly conceived *Exidia glandulosa* and that he thought the latter species to be "primo albido-glauca", as well as that under *Tremella albidia* [sensu Fr. = *E. cartilaginea*] he remarked, "Ne cum varietibus glaucis *Exidiae glandulosae* commutes, cavendum est" are significant support for the conclusion that he included *E. albidia* in his conception of *E. glandulosa*.

(33). It is now customary to cite '*Tremella viscosa* B. & Br.' as a synonym of *Exidia albidia*. This is not correct; the name was not given to a new species but is merely an avowed isonym of *Corticium viscosum* Pers. Berkeley & Broome [1854 (AM II 13): 406] cited "(P.)" after their new combination and added the reference "*Corticium viscosum*, P. Obs. 2. p. 18." This Persoonian species is currently regarded as belonging to *Corticium lividum* (Pers. per Fr.) Fr., a species of *Phlebia* Fr. emend.

It was Fries (1874: 691-692) who excluded the type of *Tremella viscosa* sensu B. & Br.: "C[orticium] viscosum Ed. I. l.c. s. *Theleph.* Pers. Syn. p. 580 est varietas caesia [*Corticii lividi*]." He thus introduced a 'new' species, *Tremella viscosa* Fr., which is not only a later homonym of *T. viscosa* (Pers.) B. & Br., but is also based on the material that served for Berkeley & Broome's description. Reid & Austwick [1963 (GN 18): 330] thought it "probable that Berkeley and Broome applied the name to cover specimens of both *E. thurettiana* [= *E. albidia*] and *E. nucleata* (Schw.) Burt. [= *Myxarium hyalinum*]." This suggestion calls for the selection of the type from among

Berkeley & Broome's specimens for *Tremella viscosa* Fr., so that I formally select the specimen microscopical details of which were depicted by Berkeley & Broome. Compare Neuhoﬀ: "Sporenform und Grösse im Verhältnis zur Hypobasidie lassen keinen Zweifel, dass *Ex. albida* vorliegt."

Since Rea (1922: 735) did not make it clear that he excluded the type from Berkeley and Broome's conception, his "*E[xidia] viscosa* (Berk.) Rea" must be listed as a (misapplied) isonym of *Corticium viscosum* Pers. \equiv *Thelephora viscosa* (Pers.) per Fr. 1821.

Fries also referred *Thelephora viscosa* (Pers.) Pers. sensu Schum. (1803: 397) here. Persoon (1822: 149) did not recognize his *Corticium viscosum* in it and treated it as a new species: *Thelephora viscosa* Pers. 1822, not *T. viscosa* (Pers.) per Fr. 1821. Schumacher's drawing of his conception of *T. viscosa* (Pers.) Pers. 1801 (representing the type of *T. viscosa* Pers. 1822) was published by Hornemann [1825 (Fd 11 / F. 31): 12 pl. 1851 f. 1]. I find it difficult to recognize *E. albida* or any other species in this and, therefore, regard *Thelephora viscosa* Pers. 1822 as a nomen dubium.

(34). Neuhoﬀ (1936a: 33) claimed that Fries's description in the "Systema" of *Exidia glandulosa* "in allen Punkten auf unsere *Exidia glandulosa* zu deuten [ist]; auch gehören sämtliche Proben im Herbar Fries der Universität Upsala, die die Bezeichnung '*Exidia glandulosa*' tragen, allein zu unser Art." As to the first claim, this is untenable: a careful analysis shows that Fries did not distinguish clearly between the true (Bulliard's) *E. glandulosa* and the species to which Neuhoﬀ restricted the name. Fries's conception of *E. glandulosa* is in the main a true mixture of the two species mentioned, as it was to many later mycologists: "Magnitudine & forma maxime varia; junior orbicularis, adpressa, plicata, maculaeformis: dein late effusa (2-3 unc.) l. e. ramis longitudinaliter erumpens, turgida, undulata; interdum pezizoidea, in aliis stipitata e.s.p. . . ." (the spacing is mine). There is more in this vein. Among the references there are also several examples to show that he did neither exclude the name-bringing element, viz. "*Tremella glandulosa*. Bull. Ch. p. 220. t. 420 f. 1", nor *T. atra* O. F. Müll. in Fl. dan. pl. 884, in part, *T. spiculosa* Pers., *T. arborea* Huds. sensu Sm., Engl. Bot. pl. 2448, *T. papillata* Kunze, which are all referable to Bulliard's *T. glandulosa*. In short, *Exidia glandulosa* as conceived by Fries in 1822 is patently a combination of *E. glandulosa* sensu Neuhoﬀ and certain forms Neuhoﬀ referred to *E. truncata*. It is clear that in comparison with Neuhoﬀ Fries took the latter species in a narrow sense: "erumpit e ramis exsiccatis *Tiliae*" is the habitat he indicated for his conception of *E. truncata* in 1822 and that in 1874: 692 he still did so. Fries never drew a different line between the two. It is completely misleading to claim that he did not deliberately include typical *E. glandulosa* in its original conception. And he never excluded it: in his latest account of the species (Fries, 1874: 694) he even remarked: "Nomen Bulliardii antiquius et aptius, Persoonii praeferendum."! This is a protest directed at Sommerfelt (1826: 307) and particularly at E. L. Tulasne [1853 (ASn III 19): 200]. The latter had used the name *Tremella spiculosa* Pers. for exactly the same Parisian fungus that Bulliard had

called *T. glandulosa*. Finally it may be called to mind that Fries apparently also included *E. albida* in his emendation of *E. glandulosa* (32).

Should one wish to accept Neuhoﬀ's conceptions of both his *E. glandulosa* and *E. truncata*, what then are the correct names? Although the names *Exidia glandulosa* and *E. truncata* were both accepted in the starting-point book (Fries, 1822: 224), they were not published simultaneously; the former is the oldest priorable name, dating from 1821 when it was validly published as *Tremella glandulosa* Bull. per St-Am., whereas the latter dates from 1822. Hence, when the two are united, the name *Tremella glandulosa* must be retained (as basionym). Moreover, it must be kept in mind that by excluding the type from his conception of 'glandulosa', Neuhoﬀ defined a 'new' species; *E. glandulosa* Neuhoﬀ 1936 is, however, not only not validly published but it is also a later homonym of *E. glandulosa* (Bull. per St-Am.) Fr. 1822. Finally it must be recalled that although the first author to reduce the devaluated name *E. glandulosa* Bull. to the synonymy of *E. truncata* was Neuhoﬀ (1936) he did not reduce the legitimate form of the name, viz. *Tremella glandulosa* Bull. per St-Am. 1821 or *E. glandulosa* (Bull. per St-Am.) Fr., to the synonymy of *E. truncata* Fr. 1822. As far as I am aware this was never done. In view of the excellent plate that Bulliard published, the specimens that were depicted by Bulliard, Herb. France pl. 420 f. 1 are here maintained as representing the type of *Tremella glandulosa* Bull. \equiv *Exidia glandulosa* (Bull. per St-Am.) Fr. No specimens or figures exist that could be chosen similarly to typify *E. truncata* Fr.

(35). When attempting to decide on the correct name for *Exidia glandulosa* Neuhoﬀ. (non Bull.) (34) one must first consider *Tremella arborea* Huds. In (37) I set forth my reasons for placing the name of the latter species in the synonymy of *E. glandulosa* Bull. sensu originario.

The following name to be examined is *Tremella plana*. This species, when first published, was described as follows:

"expansa, plana, undulata, atrovirens, arborea. / Color intus ceraceus extus initio viridis dein aterrimus. Ad marginem undulata & obtuse gyrosa. Ex omnibus *Tremellis* planissima maxime inflexa, complicata, varioque modo contorta est. Substantia tota gelatinosa, exsiccata magis membranacea, crassa, arborum cortices & parietes late obducit. [Holsatia.]"—Wiggers (1780: 95).

The name *Tremella plana* was validly published by a reference ("[*Tremella*] *plana* Roth") by Schleicher in a list of Swiss plants at the end of the year 1821; there is no accompanying description. The reference ("Roth") is to *Tremella plana* Wigg., of which Roth published a condensed account based exclusively on Wiggers's ('devaluated') protologue. The reference to 'Roth' is, therefore, indirectly also a reference to 'Wigg.', and since Roth had not incorporated any additional information on the fungus itself in his treatment there can be no question about the type; it is a specimen studied by Wiggers. It follows that the revaluated name must be cited as *Tremella plana* Wigg. per Schleich.

Wiggers's description (given above) is in my opinion sufficient to justify the con-

clusion that *Tremella plana* is the same species as *Exidia glandulosa* Neuh. (non Bull.) rather than *E. pithya*.

It may well be that when Schleicher recorded *Tremella plana* from Switzerland he had in reality collected *Exidia pithya*, an interpretation that he passed on to Secretan, who gave under the name *Tremella plana* a passable account of *E. pithya*. However, this has no influence on the interpretation of the original *T. plana*: as mentioned above, when Schleicher validly published the name he added no descriptive details but merely gave the reference "Roth". This all goes to indicate that the correct name for *Exidia glandulosa* Neuh. is **Exidia plana** (Wigg. per Schleich.) Donk, *comb. nov.* (basonym, *Tremella plana* Wigg., Prim. Fl. hols. 95. 1780; Roth. Tent. Fl. germ. 1: 556. 1788 *per* Schleich., Catal. Pl. Helv., Ed. 4, 60. Dec. 29, 1821). The epithet 'plana' is well chosen for this species.

In accepting *E. glandulosa* and *E. plana* as different species I do not imply that, together with *E. pithya*, they are the only blackish exidias. *Exidia glandulosa* in particular seems to consist of a number of forms some of which may conceivably prove to be worthy of specific distinction. Several of the forms that Neuhoff described and referred to *E. glandulosa* Neuh. (= *E. plana*) might perhaps be better placed in the *E. glandulosa* complex. My experience is insufficient for me to be more positive. *Exidia plana* as conceived in this check list is the species most commonly found in western Europe and it is nearly always easily recognizable as such.

(36). As far as I have been able to conclude *Exidia applanata* Schw. 1832 is a synonym of *E. glandulosa* sensu Neuh. = *E. plana* (35). Schweinitz's protologue is, I believe, sufficient for recognition of the fungus he described. It had been previously reduced in accordance with this view: compare Neuhoff (1936a: 33 and Martin, 1952a: 82).⁷

Exidia spiculata Schw. is a name published simultaneously with *E. applanata*. In agreement with Martin it is listed in this check list, together with *E. applanata*, as a synonym of *E. plana*, although it should be pointed out that some North American authors have considered it to be a distinct species, especially on account of the numerous small, white, calcareous granules contained in the surfaces.

(37). *Tremella arborea* Huds.—The pre-Friesian form of this name (*T. arborea* Huds.) has been thought to be nothing more than a binomial substitute for the phrase-name *Tremella arborea*, &c. Dill. Superficially this would seem to be correct: Hudson apparently borrowed the epithet from Dillenius and his phrase does not conflict with a long-current interpretation of *Exidia glandulosa* Bull. (34). However, this conception is now often considered too broad and it has been subdivided into

⁷ Martin's description seems to be drawn up only from material referable to *E. glandulosa* sensu Neuh.; his synonymy, however, shows that he does not discriminate between this species and *E. glandulosa* sensu originario (*E. truncata* emend. Neuh.). Does the latter species occur at all in the North Central region of the U.S.A. with which his publication is concerned?

at least two species: *E. glandulosa* Bull. per Fr. sensu stricto and *E. plana* (Wigg. per Schleich.) Donk (= *E. glandulosa* Neuh.) (34). The question to be answered is to which of these elements the 'type' of Hudson's name belongs.

There is no doubt in my mind that Dillenius's fungus belongs to the common form of *E. plana*: compare "*Tremella arborea nigricans, minus pingui & fugax*. Witches Butter. / Tota e membrana gelatinosa constat, minus pingui & fugaci, quam praecedentis [*Tremella terrestris sinuosa, pinguis & fugax* Dill. \equiv *Nostoc vulgare* Vauch. per Born. & Flah.], colore obscure, e fusco nempe & rufo nigricante, per siccitatem nigro. Eminentias venosas habet absque ullo ordine. Subtus plana est, non rugosa, superne praeter venas cribris punctis tuberculis nigris interstincta. / Arborum corticibus adnascitur . . ." The figure is quite recognizable as well. The (devaluated) binominals *Tremella nigricans* With. and *T. picea* Latourr. were introduced for Dillenius's species.

Hudson's phrase runs, "sessilis subrotunda undulata nigrescens" to which is added "Habitat in truncis arborum", as well as four synonyms, the first of which is Dillenius's non-binomial name, which Hudson thought represented the first British record of his species. After comparing Hudson's phrase with Dillenius's protologue I could not avoid concluding that Hudson drew up his phrase from a lot of specimens different from those of Dillenius. The significant words 'sessilis, subrotundus undulatus' are Hudson's own and do not appear in Dillenius's account. These words suffice to justify the conclusion that Hudson had a different species in mind; this can only be a form of *E. glandulosa* Bull. (= *E. truncata* Fr. emend. Neuh.). The first interpretation of Hudson's fungus by Smith [1812 (EB 34): *pl.* 2448] is in agreement with this conclusion, as is the revalidation of the name by Hooker (1821: 31): "*Tr. arborea*, sessile gelatinous roundish undulated blackish [Hudson's phrase translated!] beset with mammillary white-headed processes on the upper side [taken from Smith's account]. Sm. in E.B. t. 2448. / Hab. On fallen trees and dead wood, frequent. . . ." These considerations may explain why *T. arborea* Huds. \equiv *Exidia arborea* (Huds. per Hook.) Sacc. appears on this check list as a synonym of *E. glandulosa* Bull. sensu originario (non Neuh.) = *E. truncata* Fr. emend. Neuh.

Exidia arborea "Lloyd", as listed by Stevenson & Cash (1936: 30), is simply an application of Hudson's name. When Lloyd collected Bulliard's *Tremella glandulosa* near Paris, he realized that it was different from what he was accustomed to calling *Exidia glandulosa* (*E. plana* of this check list). Being strongly and emotionally wedded to his own sacred principles of nomenclature he could not do otherwise than retain the name *E. glandulosa* for the fungus to which he had previously misapplied it and look for another name for what he was convinced was the fungus that Bulliard had called *Tremella glandulosa*. He thought that this might be called "*Exidia arborea* as named by Hoffman [!]." This is a complicated error. No doubt he picked up the idea from Bulliard (1791 H.: 220) who listed "*Tremella arborea* Hoffm. crypt. 37. Tab. 8. Fig. 1. fasc. I" as a synonym of his *T. glandulosa*. In Hoffmann's publication it will be found, first, that Hoffmann merely applied the name published earlier, *T. arborea* Huds., and, secondly, that he applied it incorrectly, viz. to *Exidia plana*.

Lichen fugax is very likely another early synonym of *Exidia plana*. The protologue (including a coloured plate) leaves little doubt in this respect. The author identified his species with *Tremella arborea*, &c. Dill. According to Degelius [1954 (Sbu 13²): 464] there is a 'syntype' in von Wulfen's herbarium (W) that is annotated by Arnold as "nicht *Nostoc*, sondern *Exidia* wohl *repanda* Fr." Arnold [1882 (VW 32): 160] also remarked: "Wulfen gibt so verschiedenartige Standorte an, dass unter seinem *L. fugax* (1789) sicher mehrere Arten zu verstehen sind." This may be true, but both description and plate suggest only *E. plana* and in any case not *E. repanda*.

(38). *Tremella atra* O. F. Müll. is a name that was introduced for two forms that are now often treated as specifically distinct. Of the two figures in the protologue, figure 1 represents the common form that is called *Exidia plana* in this check list, and figure 2, *E. glandulosa* (= *E. truncata* Fr. emend. Neuh.). The specimen depicted in figure 2 is herewith selected as type. This makes *T. atra* O. F. Müll. per Spreng. 1827 a synonym of *E. glandulosa* sensu originario. The choice was made to confirm the listing of *T. atra* as a synonym of *E. truncata* by Neuhoff (1936a: 41). It is true that Fries (1822: 224; 1828 E. 2: 35, "certe hujus loci") had previously listed *T. atra* as a synonym of *E. glandulosa*, but this was the listing of a devalidated name rather than of its priorable counterpart. It is also evident that Fries, unlike Neuhoff, did not consider the original *T. atra* to be a too broadly conceived species.

I cannot postulate any connection between the name under discussion and *T. atra* Schrank, which from its description I would rather refer to *Exidia plana*.

(39). It is now current practice to list *Tremella corrugata* Schw. (type from the U.S.A., North Carolina) as a straight synonym of *Exidia recisa*. It would seem that a southern form exists in the North American continent. Martin (1952a: 81) declared explicitly that (apparently as far as the North Central U.S.A. is concerned) Neuhoff's illustrations of the European material "are very good of our form and the microscopic differences [he] cited fall well within the limits of variability of a single species." This may well be the case, but the colour of *T. corrugata*, as mentioned in von Schweinitz's protologue as 'blackish-purple in colour', is certainly not reported for the European form. Coker [1920 (JMS 35): 131] identified *T. corrugata* with his conception of *Exidia gelatinosa*. His description is based on at least eight collections and gives the colour of the fruitbody as "deep blackish wine colour". He said the species is very common in North Carolina. In view of this unusual colour, and possible other differences, I have refrained from listing *T. corrugata* among the synonyms of *Exidia recisa*.

(40). It was suggested by von Höhnelt [1918 (SbW 127): 354, 585] that the original *Peziza pura* Pers. might be identical with *Exidia umbrinella*. The former species has been the source of widely different interpretations. The first author to apply the name was Fries (1822: 168, as *Bulgaria pura*), who recorded it from *Fagus*, while Persoon's protologue records the habitat as "ad truncos abietinos". This

discrepancy was stressed by Petrak [1921 (Am 19): 43] when he published the genus *Neobulgaria* for "*Neobulgaria pura* (Fr.) Petr.": "Persoons Pilz ... ist ... völlig unsicher". His conclusion is questionable. Compare, for instance, "dilute carnea Ad truncos Cum *P. inquinante* quod formam exacte convenit. Substantia mollissima" (Persoon, 1801: 632). In any case, these indications do not agree at all with *Exidia umbrinella*, which has a different colour and, as to shape, does not strongly suggest *Phaeobulgaria inquinans*. It may be pointed out (i) that Fries had no doubt about the identity of Persoon's fungus with the one he called *Bulgaria pura*, that (ii) his description closely agrees with Persoon's, and (iii) that it has not yet been proved that his fungus (on *Fagus*) is really different. I am inclined to agree with an earlier conclusion arrived at by Petrak [1914 (Am 12): 479], viz. that Persoon erred when he named the substratum.

Petrak's returning from his earlier conclusion and his labelling of Persoon's fungus as "völlig unsicher" is the more astonishing because of the following remark [1921 (Am 19): 44]: "bei [*Neobulgaria pura* nimmt] der gelatinöse Schleim im Alter [zu], weshalb ganz alte Exemplare gleichsam zerfliessen. Dazu kommt endlich noch die auffällige Ähnlichkeit, welche der Pilz in frischem Zustande mit *B. inquinans* hat. Er sieht da genau so aus wie eine blass-fleischfarbige, ... weiche *Bulgaria*." This reads like a faithful paraphrase of Persoon's own words quoted above!

Quélet (1888: 20) confused *Peziza pura* still further. Under this name he engrafted into the description of a typical peziza-like fungus the spores of what may be supposed to be *Craterocolla*, a genus suggested by the citation of *Ditangium insigne* P. Karst. as synonym and the indicated substratum ("sur l'écorce des sapins"). The fruitbody he described, cannot be the 'pycnidium' of *Craterocolla*, but it strongly recalls the fruitbody of *P. pura* (26).

Heterochaete

(41). This is rather a broad genus as far as genera of the Tremellaceae go, but in Europe it is very poorly represented. A monograph on it was published by Bodman (1952). It is evident that the genus is artificial even in its most restricted current sense, which does not include *Heterochaetella*. Wells (1962: 322) thought that *Sebacina hirneoloides* Pat. apud Pat. & Lag. (extra-European), the type species of *Hirneolina*, might possibly be a member of *Heterochaete* as defined by Bodman. Some species have been mentioned above in the discussion of *Eichleriella* (28).

The one European species mentioned on the check list is treated as such in agreement with remarks by Wells, but I am not convinced that it is congeneric with the type of the generic name, viz. *Heterochaete andina* Pat. & Lag. Compare also *Sebacina podlachica* (see p. 177) forma *heterochaetiformis* Bourd. & G. 1928: 46.

(42). The published descriptions of *Heterochaete macrochaete* lack certain essential details; this prevents me from forming an own opinion about the probable taxonomic position of the species, in this case, for instance, whether it is really congeneric with

the type of the name *Heterochaete* or not. Bodman (1952: 220, 221) thought it highly probable that *H. macrochaete* should be included in *H. minuta* Pat. (described from Ecuador). Wells (1962: 367) suggested that *Sebacina strigosa* (see p. 177) may possibly be the same as *H. macrochaete*. The specimen of the former that he studied (an authentic specimen, in any case) in his opinion belongs to *Heterochaete*.

Myxarium

(43). During the last years the tremellaceous basidium known as sphaeropedunculate has caught the attention of the taxonomist who is on the lookout for new characters to help him in making the classification of the tremellaceous fungi more natural. A basidium of this type originates as a slender club-shaped body, the apical portion of which assumes a more or less globose form before it becomes divided by cruciately arranged walls and is separated by a septum from the stalk-like portion. Each segment of the inflated portion produces a sterigma and a basidiospore. A recent study by Wells (1964b) has shown that in the North American *Exidia nucleata* (Schw.) Burt this stalk is devoid of nuclei. The septum separating the stalk develops without simultaneous formation of a clamp. In species with both clamp-formation and myxarioid sphaeropedunculate basidia, therefore, the body that appears to be the mature basidium is not subtended by a clamp. It seems quite correct to regard the stalk-like portion as part of the finished basidium.

This type of sphaeropedunculate basidia, viz. the one in which a constant stalk-like portion becomes separated by a wall from the acting globose metabasidial portion, really needs an extra qualification (for instance, 'myxarioid') to distinguish it from other more or less sphaeropedunculate basidia in which no stalk-like enucleate portion is segregated. In this second type the stalk-like portion is usually variable in length, and never very long and slender, while it is often practically absent. Cytological details of this second type were published by Whelden (1935a) for *Sebacina globispora* (71).

Although it is often far from easy to establish the presence of myxarioid sphaeropedunculate basidia, they have gradually been found to occur in several genera of Tremellaceae. It appears as though this may be of considerable taxonomic value, but it is not yet clear if the rather long series of species in which it occurs (or is thought to occur) must be divided into, or distributed over, one or several genera.

(44). A closely related problem is the question how far the limits of the genus *Myxarium* will have to be extended with regard to the other species with myxarioid sphaeropedunculate basidia. Keeping as close as possible to the prevailing classification I would suggest the retention of *Heterochaetella*, *Stypella* (in a restricted, sense) and *Protodontia*. This leaves a number of minute, pustular species now classed indiscriminately in *Exidia*, *Tremella*, or *Sebacina* were they are certainly out of place, as well as some effused species that have been referred to *Sebacina* or *Exidiopsis*. The following key may be of help in surveying these groups rapidly.

1. Cystidia present and conspicuous, projecting considerably, cylindrical, thick-walled, blunt, the lumen widening in the top. Fruitbody effused. *Heterochaetella*
1. Cystidia lacking or thin-walled, may be present as gloeocystidia.
2. Fruitbody either consisting of, or bearing, 'spines', which are tipped by axial elements that protrude to form a sterile tuft.
3. Axial elements consisting of large gloeocystidia. *Stypella*
3. Axial elements consisting of scarcely, or more or less, specialized hyphae, but not of gloeocystidia. *Protodontia*
2. Fruitbody lacking sterile-tipped pustules or spines. Cystidia rare, thin-walled.
4. Fruitbodies erumpent, rather large, pustular, becoming semiglobose, cushion-shaped, to appressed-flattened, easily reaching 10 mm or more in diam., not particularly densely crowded, although adjacent ones may coalesce. *Myxarium*
4. Fruitbodies either effused (*Sebacina*-like) or originating as densely crowded very minute pustules which do not exceed 1(-2) mm in diam.
5. Fruitbodies usually densely crowded, rarely scattered, minute pustules not over 1(-2) mm in diam., when densely crowded becoming confluent into reticulate or *Sebacina*-like masses, or retaining their individuality. Cystidia lacking.—Species listed in this paper as "incertae sedis" under *Tremella* ('Microtremella').
5. Fruitbodies not originating as distinct minute pustules but effused from the first, may appear tubercular. Thin-walled cystidia in one species.—Species listed under *Sebacina*.

It is too early to go further. The precise occurrence of the myxarioid sphaero-pedunculate basidia in the Tremellaceae still awaits more thorough exploration. This applies also to the European species which are not yet as well known as could be desired. The introduction of the denomination 'Microtremella' must be seen as that of a term rather than a name: it makes it possible to designate a group of tremellaceous fungi of a certain particular habit but no more; it does not even imply that all its members are known to possess sphaero-pedunculate basidia.

If the septa were to be taken away from the mature sphaero-pedunculate tremellaceous basidium in its broadest sense the result would be a sphaero-pedunculate holobasidium that is closely similar to that of *Ceratobasidium* (same type of sterigmata) and *Tulasnella* (strongly inflated sterigmata). Time and again it is evident that the presence or absence of basidial septa is not necessarily very important, especially if these resupinate Tremellaceae are compared with certain of the 'Tulasnellaceae'.

(45). The first species with myxarioid sphaero-pedunculate basidia that served as type of an available generic name was the European *Exidia hyalina* (*E. gemmata*), which is so closely related to the North American *E. nucleata* that the two have been confused and for some time have been considered conspecific. Re-introduction of *Myxarium* as a genus distinct from *Exidia* would seem to be an improvement upon the present classification. This necessitates the following new name: ***Myxarium hyalinum*** (Pers.) Donk, *comb. nov.*; basionym, *Tremella hyalina* Pers., Mycol. europ. 1: 105. 1822. The American species (*E. nucleata*) cannot be transferred with retention of its specific epithet because it would then be pre-occupied by an earlier homonym, *Myxarium nucleatum* Wallr., a synonym of *M. hyalinum*. It is incorrect to regard the name *Myxarium nucleatum* Wallr. as a recombination of the epithet of the American species, as was done by Neuhoﬀ (1936a: 31), who stated that Wallroth was the first to identify the European

fungus with the North American *Tremella nucleata* Schw. This is not the case: Wallroth did not definitely include this species (“*M[yxarium] nucleatum* W. . . . Vegetabile paradoxa, forsan cum *Nematelia nucleata* Fr. syst. II. 228 comparandum”) and his use of the epithet ‘nucleatum’ must be considered a coincidence. See further (46).

A few remarks on the sole European species and its synonyms—as far as they are based on European collections—are indicated. First, the use of the name *Tremella hyalina* Pers. as basionym. Bourdot & Galzin (1928: 33) already pointed out that the form lacking the hard inclusions answered to the description of the Persoonian species, and Neuhoﬀ (1936a: 29) listed *T. hyalina* as synonym of *Exidia gemmata*, remarking (on pp. 31–32) that the denomination *T. hyalina* belongs “mit ziemlicher Sicherheit” to the present species. Persoon’s protologue is brief, but after considering it carefully from various angles I am now convinced that it is impossible to reject it as a nomen dubium.

Bourdot & Galzin (1928: 67) interpreted Quélet’s use of the name, as *Dacrymyces hyalinus* (Quélet, 1888: 17), as applying to a hyaline form of *Dacrymyces deliquescens* (Bull. per St-Am.) Duby (*D. caesius* Sommerf.). In view of Quélet’s description (fruitbody 10 mm !) this is hardly correct; it may further be recalled that he also transferred *Tremella violacea* sensu Tul. to *Dacrymyces*. It is not doubtful that Quélet determined some of Bourdot’s collections of a taxon of *Dacrymyces* with colourless fruitbodies as *D. hyalina*.

As to the typification of *Tremella gemmata* Lév., I herewith select as lectotype a collection from the neighbourhood of Paris. Although Lévillé described his species in connection with a Russian collection, he also remarked: “J’ai rencontré plusieurs fois cette espèce dans les environs de Paris.” Such a specimen seems to exist in the herbarium in Paris, if I interpret correctly a remark by Lloyd [1922 (LMW 7): 1150].

As conceived by Bourdot & Galzin and Neuhoﬀ, *Exidia gemmata* = *Myxarium hyalinum* is a species that varies considerably. The characteristic calcareous inclusions may be lacking (*Tremella hyalina* Pers.) and this may also be the case in a form with robust fruitbodies (cf. Bourdot & Galzin, 1928: 33); the fruitbody may be globose-cushion-shaped (*Exidia alboglobosa* Lloyd); or the colour may vary between lilaceous pink and somewhat violaceous (*Tremella violacea* Pers. sensu L. Tul.). Elsewhere (69) it is explained why the names *Tremella violacea* Relh., Pers. cannot be listed as synonyms of *Myxarium hyalinum*. By those who do not share this conclusion, the name *Dacrymyces violaceus* (Pers. per S. F. Gray) Fr. must be taken as basionym for the correct name of *Myxarium hyalinum*, this having been published in the starting-point book.

Exidia corrugativa is another of Brefeld’s species that is difficult to place. Neuhoﬀ considered it to belong to *Exidia gemmata*. If this is correct then it is apparently a form without calcareous inclusions but with very strongly small-folded and grooved fruitbodies.

(46). It is now customary to regard *Exidia gemmata* (= *Myxarium hyalinum*) and *E. nucleata* Schw. as distinct species. The former was described from Europe, the

latter from North America. Berkeley (1860: 290) thought that the two were not specifically different and for a long time his opinion was accepted. Compare also Burt [1921 (AMo 8): 371-372]: "I know *Exidia gemmata* of Europe only by the specimen received under this name from Bourdot; this specimen agrees in all respects with our *E. nucleata*." Bourdot & Galzin (1928: 33) accepted this verdict and replaced the denomination *E. gemmata* by *E. nucleata*.

Lloyd [1922 (LMW 7): 1149-1150], who (erroneously) called the European species *Naematelia globulus* Corda, separated the two again: "The European plant . . . is, I think, distinct though very close to the North American *Naematelia nucleata*. The European species is paler color, does not become brown, nor cerebriform when old, and the spores are larger and more strongly curved." Neuhoﬀ (1936a: 31) supported this view.

As to the spores: when combining the measurements taken from North American material as published by Coker, Burt, Neuhoﬀ, and Martin one arrives at $7.4-11 \times 3-5.5 \mu$, while for the European species Bourdot & Galzin record $8-12-18 \times 3-4.5-7 \mu$, Neuhoﬀ, $(9-11.5-13(-15) \times (3.5-)4.5-5.5(-7) \mu$, and Reid & Austwick [1963 (GN 18): 330; as *E. nucleata*], $11-14(-15.5) \times 4-5(-6.5) \mu$. It would seem that there is some overlapping. Martin (1952a: 81) thought that Neuhoﬀ's illustrations of *E. gemmata* were very good for *E. nucleata* and that the microscopic differences cited fell well within the limits of variability of a single species. It is clear that the question is still in need of careful analysis.

Authors who wish to distinguish between the two and who at the same time are disposed to accept the genus *Myxarium* for them must establish the correct name for *E. nucleata*. It should perhaps be derived from *Tremella atrata* Peck, of which Bandoni (1961: 325) stated that: "The type specimen . . . appears to be a young collection of *E. nucleata*". The result would, however, be an inappropriate name.

Protodontia

(47). Here *Protodontia* is taken in a rather artificial sense in order to accommodate two species (briefly discussed below) that might not be congeneric with the typical species. The latter are supposed to have myxarioid sphaero-pedunculate basidia (43). One of the original (extra-European) species of *Stypella*, viz. *Stypella minor* A. Möll. (72), is here tentatively referred. The main difference between *Stypella* sensu stricto and typical *Protodontia* lies in the lack of conspicuous gloecystidia in the latter (44).

(48). The original *Hydnum fasciculare* has been variously interpreted. Fries claimed to have found it and transferred it to *Mucronella*. His description is too brief to make it certain whether he had the same fungus as that later described by Bresadola (1920), whose interpretation is here accepted, even though it seems open to doubt. The species is apparently exceedingly rare; so far Bresadola's descriptions and illustration have remained the only extended account of the fungus.

There are two other interpretations: (a) *Hydnum fasciculare* sensu Bres. [1903 (Am 1): 90], as a species of *Mucronella* Fr. Later Bresadola [1920 (Am 18): 63] referred this conception to a "forma effuso-subfasciculata" of *Clavaria bresadolae* Quél. [1888: 458; Bres. 1892 F.t. 2: 40 pl. 146 f. 2; not ~ Cavara 1894, not *Hydnum bresadolae* Quél. apud Bres.], presumably the same species recently redescribed as *Heridium bresadolae* (Quél.) Malenç. [1958 (BmF 73): 321 fs. 8, 8 bis]. — (b) *Hydnum fasciculare* sensu Lloyd [1915 (LMW 4): 532 f. 727], a tropical species not yet recorded from Europe and hardly to be expected to occur on this continent. According to Corner it is identical with *Deflexula fascicularis* (Bres. & Pat.) Corner (1950: 395 fs. 162, 163, pl. 11 f. 3). — (c). Another, possible, interpretation is that it is a true species of *Mucronella*, perhaps a form of *M. aggregata* (Fr.) Fr., with fasciculate rather than merely gregarious 'teeth'. Neither the protologue nor Fries's redescription mentions the gelatinous consistency of the fruitbodies of Bresadola's tremellaceous fungus.

If *Protodontia fascicularis* (in Bresadola's second conception) will become better known it may appear that it is not closely related to the typical species of *Protodontia*. I have thought of transferring this species to *Holtermannia* Sacc. & Trav. and find that Kobayasi (1937: 77) had considered the same step. Not all species of that genus are branched coralloidly: *H. corniformis* Y. Kobay. from Japan, for instance, has unbranched fruitbodies to some extent suggestive of *Calocera cornea*. *Protodontia fascicularis* would then differ from this species in that its fruitbodies (teeth) are fasciculated, and from all other species of *Holtermannia* in that these are directed downward. The few published illustrations of *H. corniformis* give the impression that some fruitbodies may curve downward to a notable extent. The two are, however, beyond doubt specifically distinct.

(49). The original description of *Protodontia filicina* is not sufficiently detailed to make it possible to decide whether it really belongs to *Protodontia* or not. The minute fruitbodies (teeth) are not or exceptionally branched and depicted in such a manner as to suggest that they were directed upward. As in the case of the preceding species, the genus *Holtermannia* Sacc. & Trav. should be kept in mind when more detailed information on *P. filicina* becomes available.

Sebacina

(50). The re-classification of the species of *Sebacina* in a broad circumscription is one of the major tasks of the taxonomist dealing with Tremellales. European authors soon found grounds to exclude *Heterochaetella* and *Bourdotia*, both genera that later underwent division. *Heterochaetella* yielded a segregate that had previously been placed in *Stypella*, while *Bourdotia* was delivered of *Basidiodendron*. The first American authors were 'lumpers' (Burt; Rogers; McGuire, 1941; Martin, 1952a: 44) who nullified these improvements, except that they maintained *Stypella*. A younger generation of American authors, however, is now engaged in reclassifying

what remains of *Sebacina* following exclusion of *Heterochaetella*, *Bourdodia* and *Basidiodendron*, as well as the resurrection of *Stypella* (57).

Even without the above mentioned excluded genera, *Sebacina*, like most other large genera of resupinate hymenomycetes, remains artificial. This will not surprise those taxonomists who are inclined to expect these generic receptacles to contain 'reduced' (rather than 'primitive') species related to various groups with more elaborate fruitbodies. To disentangle such taxa is usually no easy matter; the kind of features on which the taxonomist has come to rely in classifying the 'higher' forms have for the most part 'disappeared' in the effused forms. In *Sebacina* he is sometimes left with nothing but a few spore-producing basidia and short stretches of hyphae from which these arise; this is the case with those species as are parasitic in the fruitbody of other hymenomycetes. Similar parasitic forms are also known for *Achroomyces* (*Platyglaea arrhytidiae*), *Tremella* (*T. obscura*), and *Tulasnella* (*T. inclusa*). In the case of *Tremella* the only character that can be advanced to keep such species separate from *Sebacina* is the 'Tremella-spore', while similar (nearly globose) spores occur in a few species of a rather broadly conceived genus *Sebacina* as well.

Dividing the remainder of *Sebacina* in two merely by emphasizing the presence (*Exidiopsis*) or absence (*Sebacina*) of clamps, as was done by Ervin (1957), resulted in multiplying the number of artificial genera. However, each of these series contains a more natural group around the type species of the generic names and Wells (1962) has tried to redefine the two genera, and to outline briefly those groups that he does not admit to the emended genus *Exidiopsis* (with clamps). However, in contrast to *Sebacina* in its reduced and new sense, his conception of *Exidiopsis* is in my opinion not quite satisfactory. One of the alterations proposed by Wells is the inclusion of the typical species of *Eichleriella* (28) in his conception of *Exidiopsis*. Those who wish to follow him will find that they are saddled with a small residue of clampless species and a considerable one of species possessing clamps, as well as with a rest hitherto included in *Eichleriella*, all without proper generic names to cover them. For a check list this is not very desirable; in view of the so far rather vague definition of *Exidiopsis* by Wells which is liable to become repeatedly modified in the near future, I have preferred to retain a more inclusive generic delimitation of *Sebacina*.

Wells placed the following species in the restricted genera (only European species mentioned):

Sebacina.—*S. caesia* (51), *S. epigaea*, *S. helvelloides*, *S. incrustans* (54).

Exidiopsis.—*Sebacina calcea* (52), *S. calospora*, *S. effusa* (53), *S. fugacissima*, *Exidiopsis glaira*, *Sebacina grisea* (53), *S. laccata*, *S. molybdea*, *S. plumbea* (53), and *S. umbrina* (53), and *Eichleriella alliciens* (syn., *E. incarnata*) and *E. leucophaea*.

Wells excluded from *Exidiopsis* the species with sphaero-pedunculate basidia (43) without accommodating them elsewhere. As far as is now known the following European species were thus involved: *Sebacina podlachica* and *S. subtilacina*. *Sebacina laccata*, however, was retained in *Exidiopsis*.

If Wells had known the rest of the European species, he certainly would have admitted some of them to his emendations of *Sebacina* or *Exidiopsis*.

(51). *Corticium caesium* Pers. 1796 O. 1: 15 pl. 3 f. 6 (d.n.); *Thelephora caesia* (Pers.) Pers. 1801: 579 (d.n.) per Fr. 1821: 449. — This name has been taken up for very diverse species: viz. for forms or species of *Sebacina* and for certainly no less than four species of *Tomentella* Pat. (inclusive of *Tomentellastrum* Svrček). Persoon's protologue is in my opinion not sufficient to warrant a decision as to precisely what he had in mind. Without study of the type (which is not known to be in existence) this question seems insoluble: hence, *Corticium caesium* may be disposed of as a nomen dubium. The habitat was bare soil.

The question remains as to the identity of the interpretations that have been referred to '*Sebacina caesia*'.

(a). Sensus the Tulasnes.—"Fere tota byssina est et coloris cinereo-caesii, arenae inter muscos repens haeret et passim etiam in pulvinulos obtusos ac deformes incrassatos prominet; caeterum de basidiorum . . . , forma et crassitudine *Sebacinam incrustantem* prorsus imitatur; sporae paulo minores et contractiores pleraque videtur. . . . Habitu saltem et structura fertili congener praecedenti [*S. incrustans*] omnino est. . . ." As far as I am able to judge this may be no more than a mere form of *S. incrustans*: "fere tota byssina est"! Later authors have identified the interpretation of the Tulasnes with completely gelatinous forms or species closely related to *S. incrustans*.

(b). Sensus Patouillard.—Patouillard called his species *Sebacina caesia* "Tul. . . . (Non *Thelephora caesia* Pers. . . .)." By expressly excluding the basionym (type) he introduced a new name for a 'new' species: *Sebacina caesia* Pat., which he erroneously [?] ascribed to 'Tul.' His protologue describes the fruitbody as a "croûte . . . molle, céracée gélatineuse, non fibreuse, étalée, formée de tubercules petits, confluent" This can hardly be the fungus the Tulasnes had in mind, but it may well be the same as *Sebacina laciniata* subsp. *S. caesia* "(Pers. . . .) Tul." of Bourdot & Galzin.

Pearson [1921 (TBS 7): 55] referred such forms to *Sebacina incrustans*: "... the coriaceous subiculum is sometimes well developed But careful observation will show that [these] forms, which are summer forms and often almost sterile, are replaced gradually in the autumn and winter by other forms where the coriaceous subiculum is reduced more and more until it disappears. The plant is then spread over the soil or débris and entirely gelatinous-mucous. . . . The same plant turned pruinose and bluish by abundant sporulation constitutes *Sebacina caesia* Tul. . . ." These observations are perhaps not quite conclusive and need further confirmation. Until then *Sebacina caesia* may be retained as distinct, by way of reminder.

The typification of the name *Sebacina caesia* 'Pat.' poses a problem. Since Patouillard ascribed the name to the Tulasnes (who almost certainly described a different form, if not species) and since he excluded the basionym (published by Persoon), it might seem necessary to regard it as a new name for the fungus described by the Tulasnes. On the other hand Patouillard's description was drawn up from his own specimens and one of the latter should perhaps be selected as type.

(c). Sensus Christiansen.—Called "*Sebacina caesia* (Pers.) Tul." According to the

description the fruitbody is "widely effused, . . . thin, soft gelatinous, . . . in drying-up hardly visible." The description does not mention clamps, nor does the figure show them, but from the key to the species of *Sebacina* it can only be concluded that these organs were present, which would indicate that Christiansen's fungus does not belong to *Sebacina* emend. Wells, although by their size and shape the spores strongly suggest this group.

(52). American authors distinguish between *Sebacina calcea* = *Exidiopsis calcea* and *Sebacina macrospora* (Ell. & Ev.) Burt. = *Exidiopsis macrospora* (Ell. & Ev.) Wells.⁸ Recently Wells (1962: 352) reported the latter species from Europe (Denmark, Austria, France); moreover he thought that Malençon's description of *Sebacina calcea* from North Africa (Middle Atlas Mts., not France, as stated by Wells) suggested this same species. Wells examined no European collection that he thought proper to refer to *S. calcea*. According to him, "The margins [of the fruitbody] of *E. calcea* are abrupt at maturity, whereas the margins of *E. macrospora* are abrupt and frequently reflexed especially after the specimen has dried. In addition, the basidia and basidiospores of *E. macrospora* are distinctly smaller than those of *E. calcea*." For the present it seems premature to admit *S. macrospora* as a European species distinct from *S. calcea*. Boidin & Lanquetin [1965 (RM 30): 11] also expressed doubts about this.

(53). Of *Exidiopsis grisea* (= *Sebacina grisea*) Wells (1962: 341) made a very inclusive species by referring to it not only *Sebacina glauca* Pat. and *Exidiopsis plumbescens* (Burt) Wells, both based on extra-European material, but also the following: *Exidiopsis grisea* (Pers.) Bourd. & L. Maire; *Exidiopsis effusa* (Bref. ex Sacc.) A. Möll. [syn., *Sebacina uvida* sensu Bres.; *Sebacina quercina* (Vuill.) ex Maire]; *Exidiopsis peritricha* (Bourd. & G.) Sacc. & Trott.; *Sebacina plumbea* Bres. & Torr. apud Torrend (non Burt); and *Sebacina umbrina* D. P. Rog.

There has as yet been little occasion for European mycologists to form an independent opinion about the merits of this wholesale reduction. Oberwinkler, however, rejected it. Of the above-listed taxa he encountered three in the region (South Bavaria) he explored, and although he was fully aware of Well's conclusions he kept them as distinct species. My own knowledge of this group is rather restricted but as far as it goes it leads me to think that for the present it would be better to follow Bourdot & Galzin rather than Wells.

Bourdot & Galzin (1928) distinguished between *Sebacina plumbea*, *S. grisea*, and *S. uvida* (*S. effusa*), while they were no longer sure about the status of *S. peritricha*; they reduced it to the rank of a subspecies of *S. uvida* (*S. effusa*) ("... c'est plante arrive à se confondre avec *S. uvida* . . ."). They did not know *Sebacina umbrina*.

As to *Exidiopsis plumbescens* based on a specimen growing "on blackened wood of

⁸ For descriptions, see McGuire 1941 (Ll 4): 23 in obs. (*Eichleriella leveilliana*; misapplied); G. W. Mart. 1944 (SIa 18³): 48 t_{pl.} 2 f. 14, t_{pl.} 4 f. 36; 1952 (SIa 19³): 65 t_{pl.} 2 f. 14, t_{pl.} 4 f. 36 (*Eichleriella macrospora*); Wells 1962 (M 53): 352 f. 10 (*Exidiopsis macrospora*).

Populus trichocarpa" and found in the U.S.A. (Washington), I refrain from listing it in the present check list. The name was applied by Martin (see Christiansen, 1959: 32; Lundell 1959 (LNF 53-54): 30 Nos. 2671, 2672) to European specimens that would otherwise have been referred to *E. grisea*, but apparently he conceived the species in a very broad sense. For a re-description, see McGuire 1941 (Ll 4): 25 *tpl.* 3 *fs.* 50-53.

Summarizing the above, I have replaced *Exidiopsis grisea* emend. Wells by *Sebacina grisea*, *S. effusa* (syn., *S. quercina*, *S. peritricha*), *S. umbrina*, and *S. plumbea* Bres. & Torr. (non Burt, which is *S. plumbescens*).

(54). *Sebacina incrustans* is an extremely variable species that in some of its expressions fails to answer to one of the main conditions of the genus *Sebacina*, viz. that it must have completely effused fruitbodies. The number of synonyms for it testifies to the difficulty of recognizing the species in all its guises. By also including *S. epigaea* some authors have conceived it in an even broader sense than that adopted in this check list.

The first volume of Fries's "Systema" (Jan. 1, 1821) lists the species twice, as *Thelephora incrustans* (Pers.) Pers. and as *T. cristata* (Pers.) per Fr., names for respectively the effused and encrusting form and the one with cristate processes. As far as I know the name first reduced to the synonymy of the other is *T. cristata*; Wallroth (1833: 566) used it for a variety of *T. incrustans*. On the basis of this information the latter name should serve as basionym for the correct name, which appear to be *Sebacina incrustans*.

The form with very strongly developed ascending processes with cristate tips was called *Clavaria laciniata* by Bulliard. This was not a new name but merely a misapplication of *C. laciniata* Schaeff., which is a synonym of *Clavulina cristata* (Holmskj. per Fr.) J. Schroet. Not until Schaeffer's fungus was definitely excluded was a new name with the epithet 'laciniata . . . (non Schaeff.)' created. I have not tried to find out who did so for the first time, but in any case, as far as I am aware I came across no author accepting 'laciniata Bull.' who at the same time expressly excluded the type (*Clavaria laciniata* Schaeff.).

This strongly *Clavulina*-like form that received the misapplied name *Sebacina laciniata* looks very different from the completely effused form of *S. incrustans*. It rather suggests some species of *Tremellodendron* Atk. (an extra-European genus) and it is tempting to accept a close connection between *Sebacina* and *Tremellodendron*; this is underlined by microscopical details. There is a constant difference between the two genera. Species of *Tremellodendron* do not vary into more or less effused forms; they are always stalked and clavarioid.

Still another form of *Sebacina incrustans* of *Clavulina*-like appearance occurs. This resembles *Clavulina rugosa* (Bull. per Fr.) J. Schroet. in having erect fruitbodies with blunt, instead of cristate, apices. Like Ade [1923 (ZP 2): 61] I have little doubt that *Clavaria rivalis* Britz. is such a form, although the spores as described in the protologue (16-18 \times 8-10 μ) surpass in size the average of the spores in European

collections. I cannot accept its identification with *Tremellodendropsis tuberosum* (Grev.) D. A. Crawf., with which Corner (1950: 192, sub *Aphelaria*) identified it. *Sebacina bresadolae* Lloyd also falls in this class; its author emphatically considered it to be "a form of incrustans", while Wells (1962: 359) thought that "the description and illustration presented by Lloyd indicate that the species should be referred to *Tremellodendron* Atk."

Sirobasidium

(55). This genus is known from outside Europe by a number of species found throughout the world. Some of these may also occur in Europe, which can boast only a single generally overlooked record (56). The other supposedly European species, *Sirobasidium cerasi* Bourd. & G., proved to be an imperfect state of a non-basidiomycetous fungus.

This remarkable genus is characterized by its catenulate basidia, which ripen in basipetal succession, and its deciduous protosterigmata. The latter are more or less spindle-shaped and produce knobs or short tubes (secondary protosterigmata) tipped with spicula (cf. Bandoni, 1957b, for *S. sanguineum* Lag. & Pat., with different terminology; cf. Donk. 1958a: 102-103).

(56). Although the basidia in *Sirobasidium* are often cruciately septate like in other typically tremellaceous basidia, there is within the genus as a whole enormous variation: quite often only one septum is formed and that may be oblique to even more or less transversal. A species with such two-celled basidia served as the basis of *Sirobasidium* subgen. *Sirodidymia* Maire (lacking Latin description). This taxon was introduced to receive *S. brefeldianum* A. Möll. In the European collection (called *S. brefeldianum* f. *microsporum* Maire) the mature basidia are more elongate than usual and the single crosswall tends to be almost transversal. This may prove to be a distinct species.

Stypella

(57). This genus was introduced for two Brazilian species, *Stypella papillata* A. Möll. (lectotype) and *S. minor* A. Möll. From the descriptions it might be concluded that both are 'resupinate' (effused) species, but the accompanying figures show that the fruitbodies are composed rather of 'Papillen' (pustules), but with sterile tips, so that these can better be called teeth of spines, whose axes are occupied by either distinct gloeocystidia (*S. papillata*) or unbranched hyphae (*S. minor*). Both these kinds of elements protrude at the tip of the teeth. The presence of branched hyphidia (dendrohyphidia) was not indicated, but it may have been overlooked.

When discussing Möller's genus, Martin (1934) also tried to identify the two original species. I assume that his interpretation of *S. papillata* (the gloeocystidiolate species) was correct and that its subsequent identification with *Heterochaetella*

crystallina (Bourd.) Bourd. & G. is also correct. As to the other species I do not accept Martin's interpretation (72).

To accept Martin's interpretation of *S. papillata* it would also be necessary to accept that the basidia of *Stypella* sensu stricto are sphaero-pedunculate (43). Moreover, it would be necessary to decide on the exact circumscription of the genus. In this case this amounts to deciding whether or not *S. papillata* should be combined with 'papillate' species lacking gloecystidia but possessing sterile-tipped teeth (*S. minor* and certain 'papillate' species that are not sterile-tipped, such as *Sebacina sphaerospora* Bourd. & G. (= *Stypella minor* sensu G. W. Mart.). As far as I can judge from Möller's account his *Stypella minor* is rather a member of *Protodontia* and in accordance with this view it is here tentatively excluded from *Stypella*. The species of the *Sebacina sphaerospora* group are placed on this check list as "incertae sedis" ('Microtremella') of *Tremella*.

Tremella

(58). Fries's conception of *Tremella albida* Huds., discussed elsewhere (31), was very inclusive. Except for the name-bringing component (now called *Exidia albida*) and his personal contribution to the complex (*E. cartilaginea*), he also included *Tremella cerebrina* var. *alba* Bull., which is doubtless a species of *Tremella* (59). Finally, he also listed *Tremella candida* Pers. as a synonym. This last species has since disappeared from the scene.

The original description of *T. candida* is very brief, but just sufficient, I believe, for forming an opinion about its identity. It is not a species of *Exidia*. To conceive it as a species of *Tremella* leaves only one possibility: *Tremella albida* Huds. sensu Bourdot & Galzin (1928: 21 f. 13); the protologue agrees most closely with small to average fruitbodies of that species; these are considerably smaller than the exceptionally large fruitbody depicted by the French authors at the top of their figure. This large example may have been included because it came closest in size and appearance to the white fruitbody depicted by Bulliard to represent his *T. cerebrina* var. *alba* (pl. 386 f. A); Bourdot & Galzin referred this with confidence to their conception of *T. albida*. In my opinion this is not tenable: this figure by Bulliard cannot depict anything else but a pale, practically white fruitbody of the same species as that to which figure B belongs: *T. cerebrina* as conceived in (59).

I have also compared Persoon's protologue of *T. candida* with that of *T. spicata* (differently shaped fruitbody), *T. indecorata*, and *T. hispanica*. It is patent that these do not fit in with his.

(59). *Tremella cerebrina* Bull. has dropped from circulation. Since its name was revalidated at a very early date, it is desirable to try to settle its correct application. Bulliard made it quite clear that it was a species with a large, thick fruitbody, compact within (not composed of distinct lobes connected only at the base), and with a strongly-gyrosely sulcate surface: "en tous points si semblable à de la Cerveille

qu'il n'est personne qui ne s'y laisseroit tromper." Bulliard admitted three varieties, white, yellow, and blackish. The substratum: old stumps.

Leaving out of consideration the blackish variety and assuming that the colour may be white (var. *alba*) or yellow (var. *lutea*), I can think of only one species that fits most of the requirements, viz. *Tremella frondosa* Fr. in the sense of Quélet and Bourdot & Galzin (1928: 19), particularly the not fully developed stage, which was described thus: "Subglobuleux, dur, cérébriforme, à plis épais de 1 cm et plus . . . crème citrin ou paille . . . Sur souches et troncs de hêtres, chêne . . ." Since there is strong doubt about the correctness of Bourdot & Galzin's application of the name *T. frondosa* Fr. (64), one might be tempted to apply the name *T. cerebrina* to their species.

It is obvious that Bulliard was very much struck by the likeness to brains. It is also obvious that the full-grown fruitbody of *T. frondosa* sensu Bourd. & G. loses this resemblance upon further development: "puis foliacé, haute et large de 5-12 cm à lobes . . . très larges, arrondis, ondulés . . ." The two French authors perhaps thought of this stage when they cited for their species "Bull., t. 499, f. *T.*" \equiv *Tremella mesenteriformis* var. *livida* Bull. (1791 H.: 230). On the other hand since the fungus depicted by Bulliard was neither white nor yellow it is not unlikely that the citation was an error and merely copied from Fries (64).

Tremella cerebrina var. *alba* and var. *lutea* are depicted so much alike that they cannot be distinguished except by their colour; the conclusion is justified that there is in reality no appreciable difference between the two. The selection of either as type would not prevent the application of the name suggested above. 'Var. *alba*' (Bulliard, pl. 386 f. A) is stated to be the most common form; the colour most closely resembles brains; judging only from the protologue one would be inclined to consider this figure A as 'type'. The first author to take up the name after the starting-point date was, as far as my knowledge goes, Saint-Amans (1821: 536), who stated in his regional flora that he had found only the third form ("d'abord brun, puis noire"); however, he did not exclude the other two forms. Then followed Mérat (1821: 28), who merely compiled Bulliard's species. Toward the end of the same year Purton (1821: 176) reported the species from England. He gave as the specific character: "sessile, clustered, convoluted; dilute yellow to orange colour; fleshy within", and added the remark, "This is certainly distinct from *T. mesenterica* . . . It is much firmer and less gelly-like than the *mesenterica*." By his phrase and the citation "*Tremella cerebrina* Bull. t. 386. B!" he may have wished to indicate that his collection resembled only 'var. *lutea*' rather than to deliberately exclude the other varieties from the specific conception. Independently of the answer to the question whether Purton applied the name *T. cerebrina* Bull. correctly or not, I, herewith, select as type the fruitbody depicted by Bulliard in his figure B. As to his third variety ('var. *nigra*'), it would seem prudent not to offer any opinion; the problem is completely irrelevant to the present discussion.

Fries (1822: 215) listed 'var. *alba*' as part of his conception of *Tremella albida* Huds. (= *Exidia albida*) (31). This suggestion is unacceptable. 'Var. *lutea*' was not men-

tioned. Bourdot & Galzin (1928: 21) cited 'var. *alba*' (Bull., pl. 386 f. A), with an exclamation-point, as pertaining to their conception of *T. albida* Huds., which is a species of *Tremella*. In (58) I have mentioned my reasons for disagreeing with this conclusion.

(60). The genus *Naematelia* consisted in the main of two unrelated groups, one with *Tremella*-like spores (*Naematelia* sensu stricto), and one with *Exidia*-like spores; the latter has been transferred to *Exidia* and on this check list is included in *Myxarium*. The restricted genus has often been regarded as not worthy of segregation from *Tremella*. It is characterized by the context of the fruitbody: firm, whitish, not transparent within and surrounded by a gelatinous, typically tremellaceous layer. Some years ago Bandoni (1961: 321) came to the conclusion that the firm kernel represented aborted fruitbodies of species of *Stereum* (narrow sense) and that these were parasitized by *Tremella*. The peculiar context was the reason for instituting the genus, as is also expressed by the generic name [meaning approximately 'wrapped in a (gelatinous) liquid']; it therefore follows that if the dual nature of the fruitbody is accepted *Naematelia* must be considered impriorable as a nomen confusum. This point of view I regard as correct.

(61). The type species of the name *Naematelia* is *Tremella encephaliformis* Willd. \equiv *Tremella encephala* Pers. \equiv *Naematelia encephala* (Pers. per Pers.) Fr. As explained in the preceding Note, the generic name *Naematelia* must be rejected because it is a nomen confusum. Is the dual nature of this species sufficiently strongly emphasized in the protologue to reject also the specific name for the same reason? I have not pursued this question further principally because the issue of what in that case should be the correct name is neither nomenclatively nor taxonomically easily solved. When Bandoni established the dual nature of *T. encephala* he simply restricted the use of this name to the *Tremella* component. This use is here followed.

In an attempt to reassess the limits of *T. encephala* it is useful to consider the following possibilities: (i) that the *Tremella* 'component' might occur in nature also non-parasitically as well, and (ii) that, as a parasite, it might not be restricted to *Stereum sanguinolentum*, and perhaps, also grows on other species of *Stereum*. It has not yet been possible to identify any 'free-living' species of *Tremella* with the parasite. As far as I am aware, *Tremella encephala* is, in Europe at least, restricted to coniferous hosts, which would indicate that it is restricted to fruitbodies of *S. sanguinolentum*. In North America and Japan species of '*Naematelia*' have also been recorded from frondose trees where the tremellaceous component was associated with other species of *Stereum*.

This narrow, but not necessarily correct, conception of *T. encephala* is the reason that I have omitted from the synonymy all names of species of '*Naematelia*' recorded from frondose wood. These names are *Sparassis tremelloides* Berk. 1873 (U.S.A., South Carolina); *Naematelia cerebriiformis* J. B. Ell. apud Peck (U.S.A., New York) type on *Carpinus*, "does not seem distinct from *T. encephala*"—Bandoni (1961: 323);